

PROJECT LOCATION



SHEET LIST

COVER SHEET DEVELOPMENT PLAN EXISTING CONDITIONS/CERTIFIED TOPOGRAPHY 2.1 2.2 LOT CONSOLIDATION PLAT L-1 LANDSCAPE PLAN A-100 CONCEPTUAL FLOOR PLANS - ONE BEDROOM/STUDIO UNITS A-101 CONCEPTUAL FLOOR PLANS - TWO BEDROOM UNITS A-102 CONCEPTUAL FIRST FLOOR PLAN CONCEPTUAL SECOND FLOOR PLAN A-103 A-104 CONCEPTUAL THIRD FLOOR PLAN A-105 CONCEPTUAL FOURTH FLOOR PLAN **CONCEPTUAL ELEVATIONS** A-106 A-107 **CONCEPTUAL ELEVATIONS** A-108 SITE DETAILS E-101 ELECTRICAL SITE PHOTOMETRIC PLAN E-102 ELECTRICAL SITE LIGHT FIXTURES C-001 CIVIL GENERAL NOTES C-002 EXISTING DRAINAGE MANAGEMENT PLAN C-003 PROPOSED DRAINAGE MANAGEMENT PLAN C-100 TERRAIN MANAGEMENT PLAN C-200 SITE UTILITY PLAN

REVISIONS DATE BY DATE BY

APPROVED FOR CONSTRUCTION CITY ENGINEER

BUILDING PERMIT NO'S

(GRADING)

(LANDSCAPE/ UTILITIES)

P & DR CASE

I CERTIFY THAT ACCORDING TO INFORMATION PROVIDED BY OTHERS, THE PROJECT WAS BUILT ACCORDING TO THE SPECIFICATIONS AND THAT THESE RECORD DRAWINGS ARE TRUE AND CORRECT TO THE BEST OF MY BELIEF

GLENN BROUGHTON, BOHANNAN HUSTON DATE

ENGINEER'S STORMWATER INFRASTRUCTURE

CERTIFICATION:

1, THE UNDERSIGNED, BEING A PROFESSIONAL ENGINEER IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE RECORD INFORMATION SHOWN HEREIN IS BASED ON ACTUAL FIELD MEASUREMENTS AND VISUAL INSPECTIONS PERFORMED BY MYSELF OR UNDER MY DIRECT SUPERVISION, I FURTHER CERTIFY THAT THE RECORD CONDITION AS OF

IS IN SUBSTANTIAL
COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN PREPARED BY GLENN BROUGHTON, DATED

GLENN BROUGHTON, BOHANNAN HUSTON DATE

DEVELOPER: ABERG PROPERTY COMPANY 2929 CARLISLE STREET, SUITE 365 DALLAS, TEXAS 75205



PLANNER: JENKINS GAVIN 130 GRANT AVE. SUITE 101 SANTA FE, NM 87501



ARCHITECT: BGO ARCHITECTS 4202 BELTWAY DRIVE ADDISON, TEXAS 75001



CIVIL ENGINEER: BOHANNAN HUSTON 7500 JEFFERSON STREET

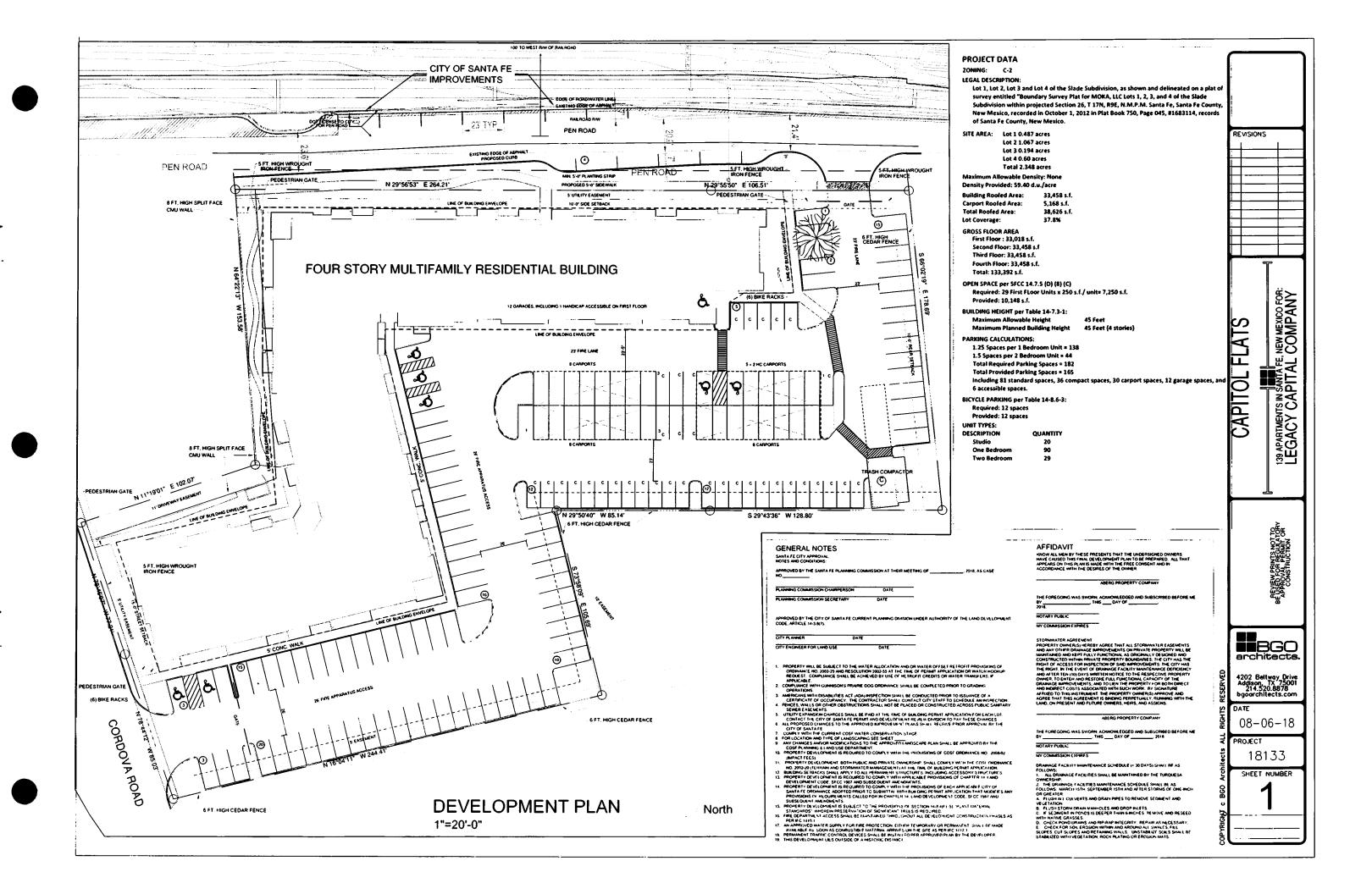
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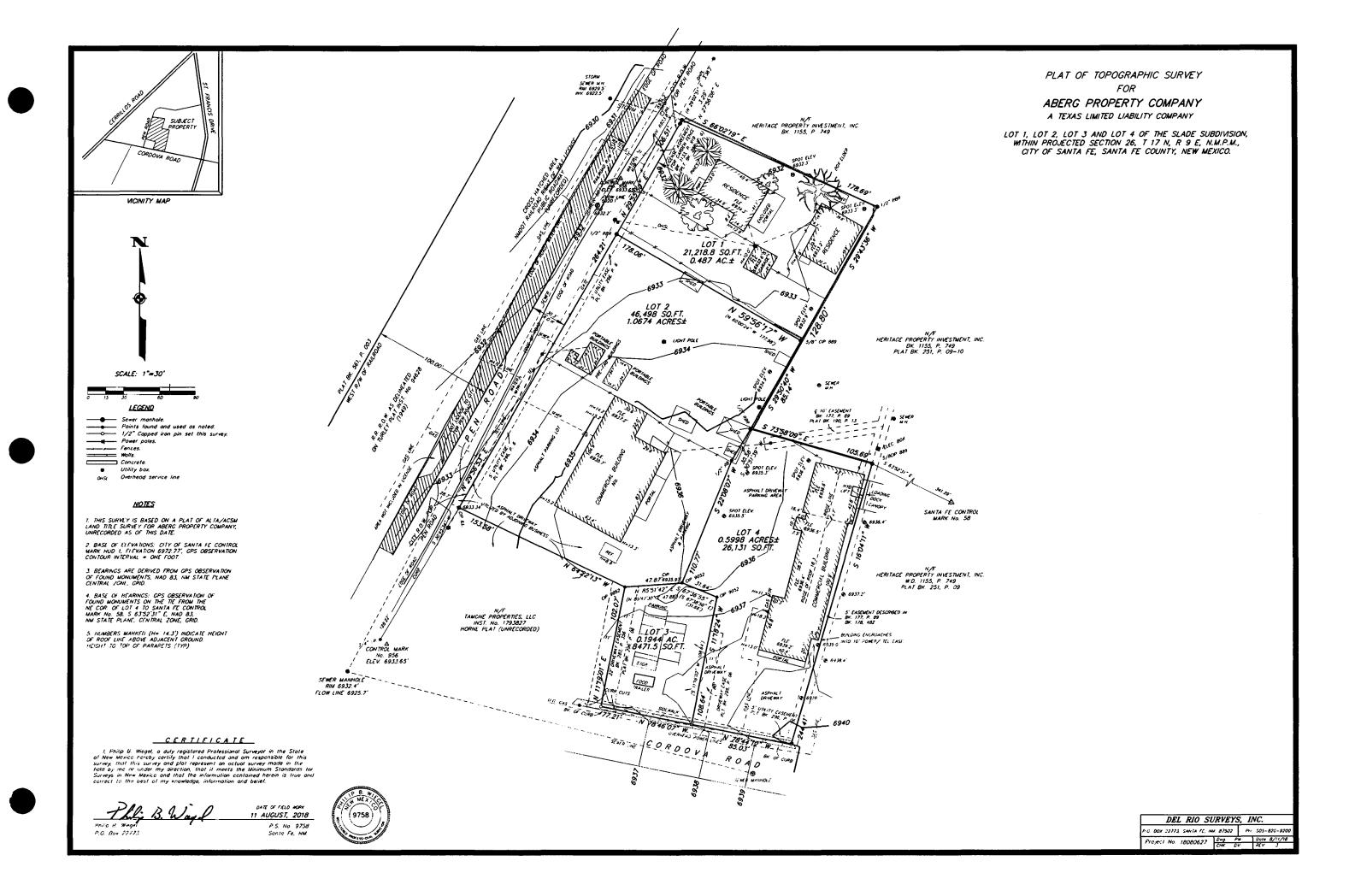
Bohannan L Huston

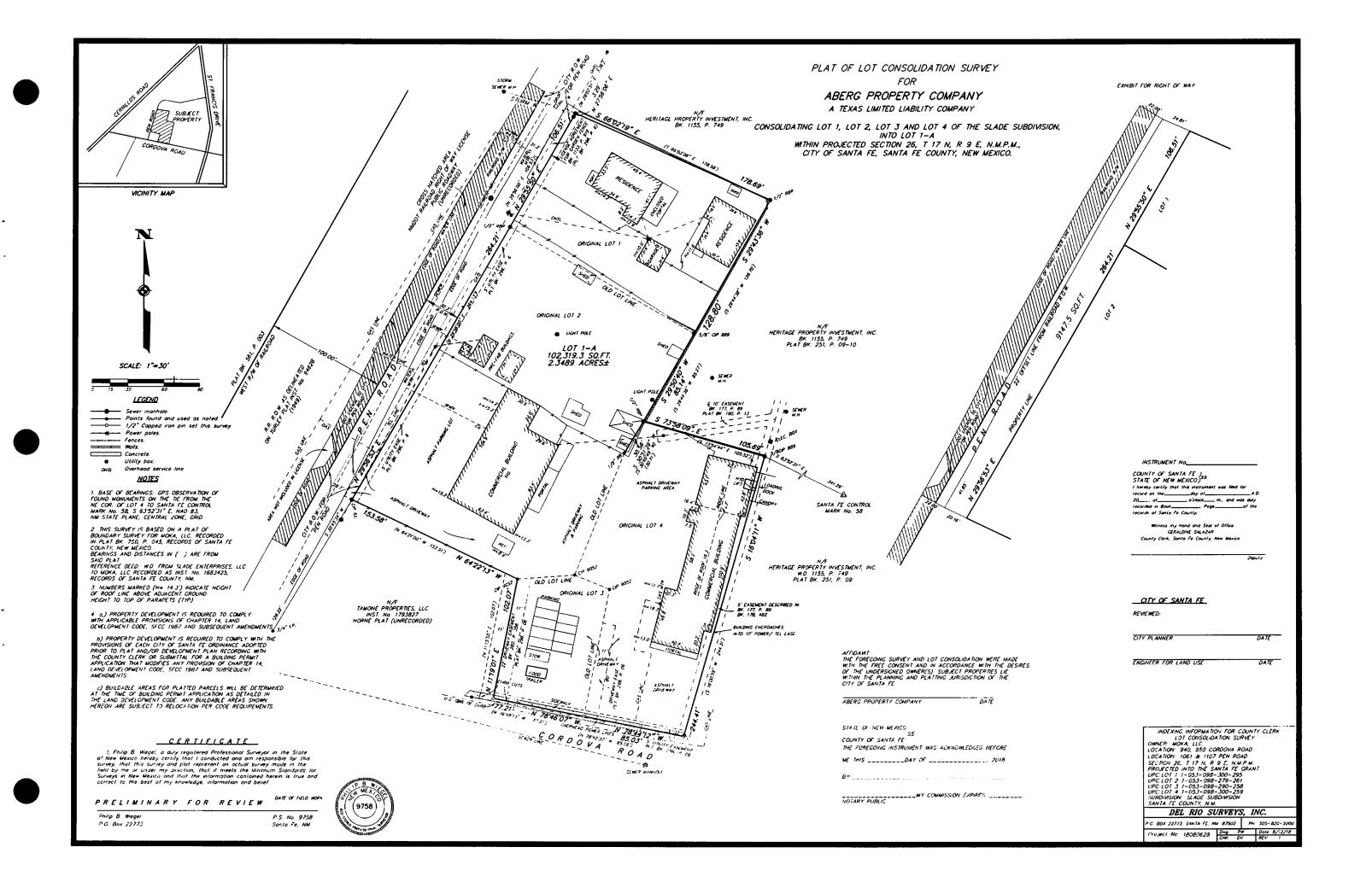
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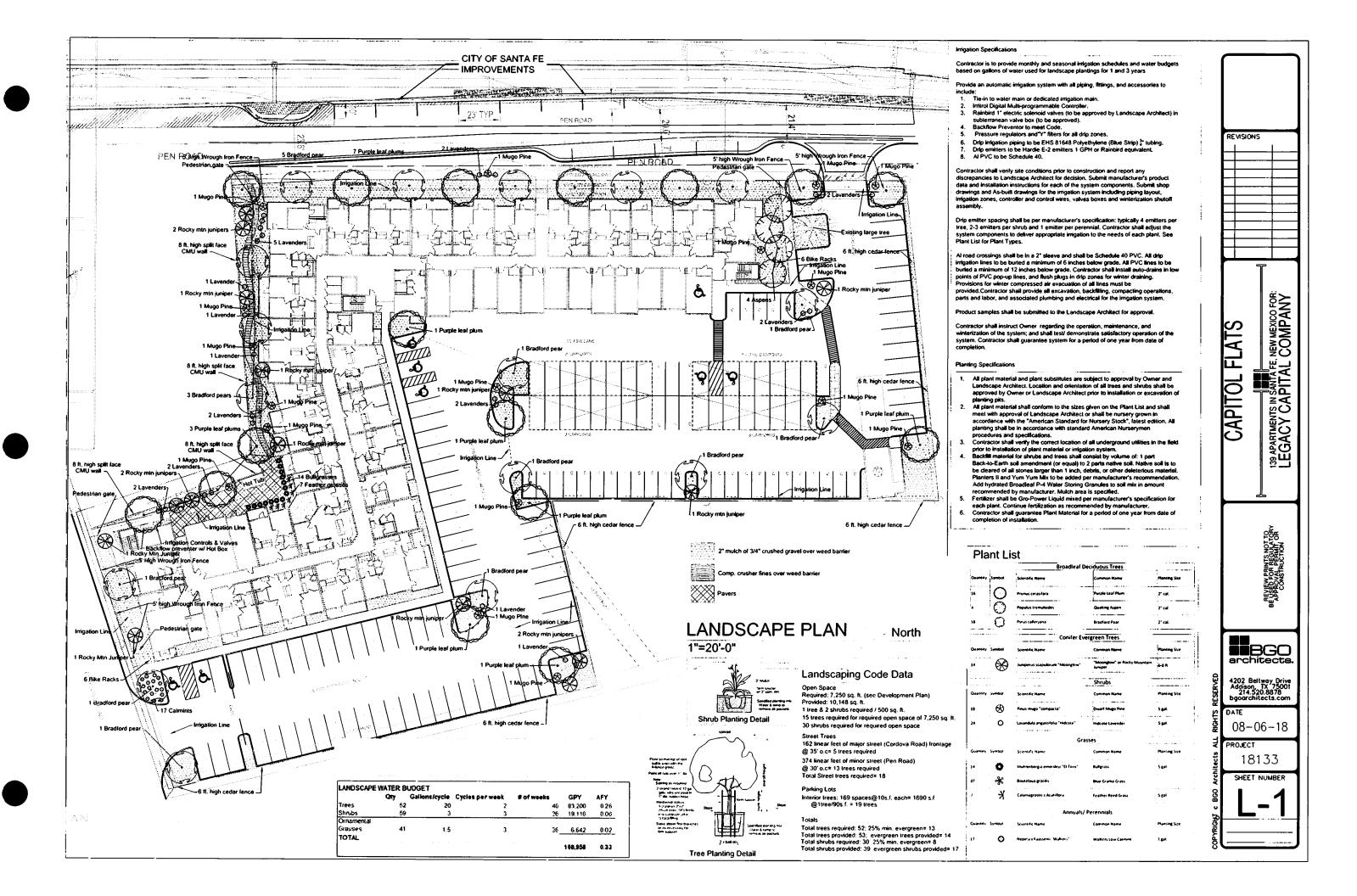
ELECTRICAL ENGINEER THE RESPONSE GROUP, INC. 11930 MENAUL N.E. SUITE 214 ALBUQUERQUE, NM 87112

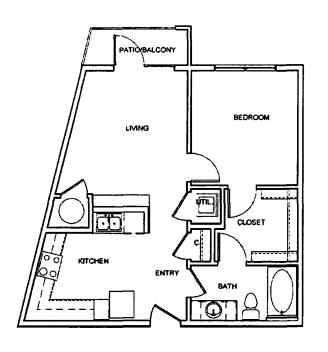


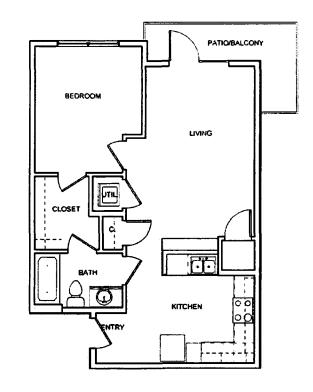






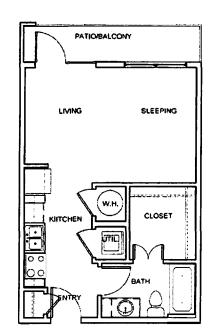




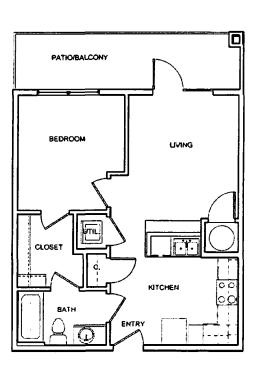


A3 CONCEPTUAL ONE BED ONE BATH 680 S.F.

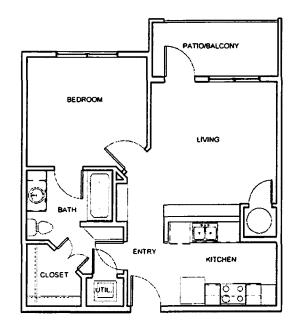
A1 (a) CONCEPTUAL ONE BED ONE BATH CORNER 701 S.F.



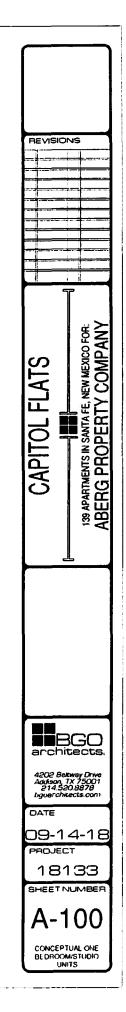
E CONCEPTUAL ONE BED ONE BATH 468 S.F.

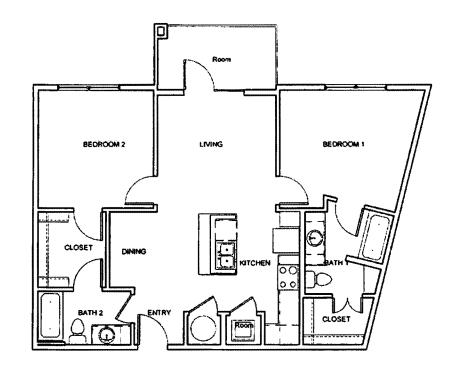


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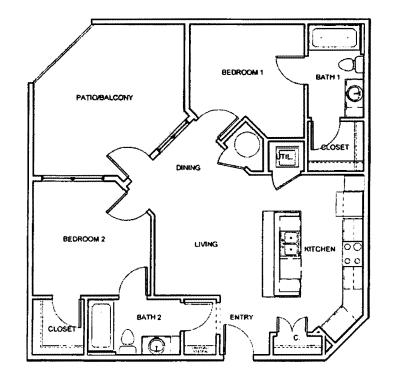


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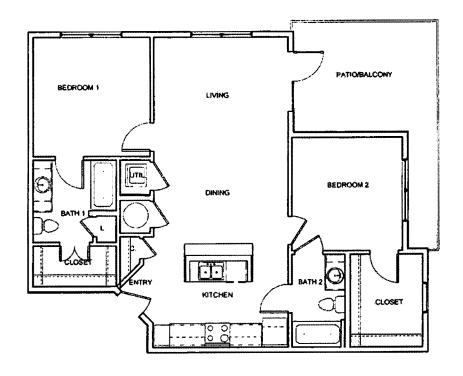




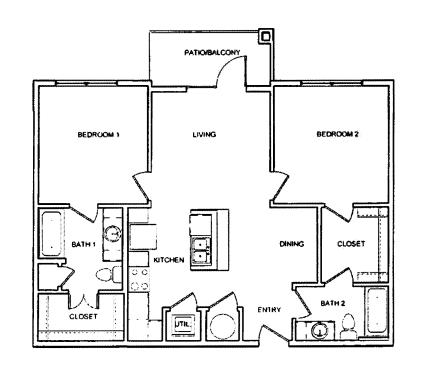
B4 CONCEPTUAL TWO BED TWO BATH 1,003 S.F.



B2 CONCEPTUAL TWO BED TWO BATH 921 S.F.

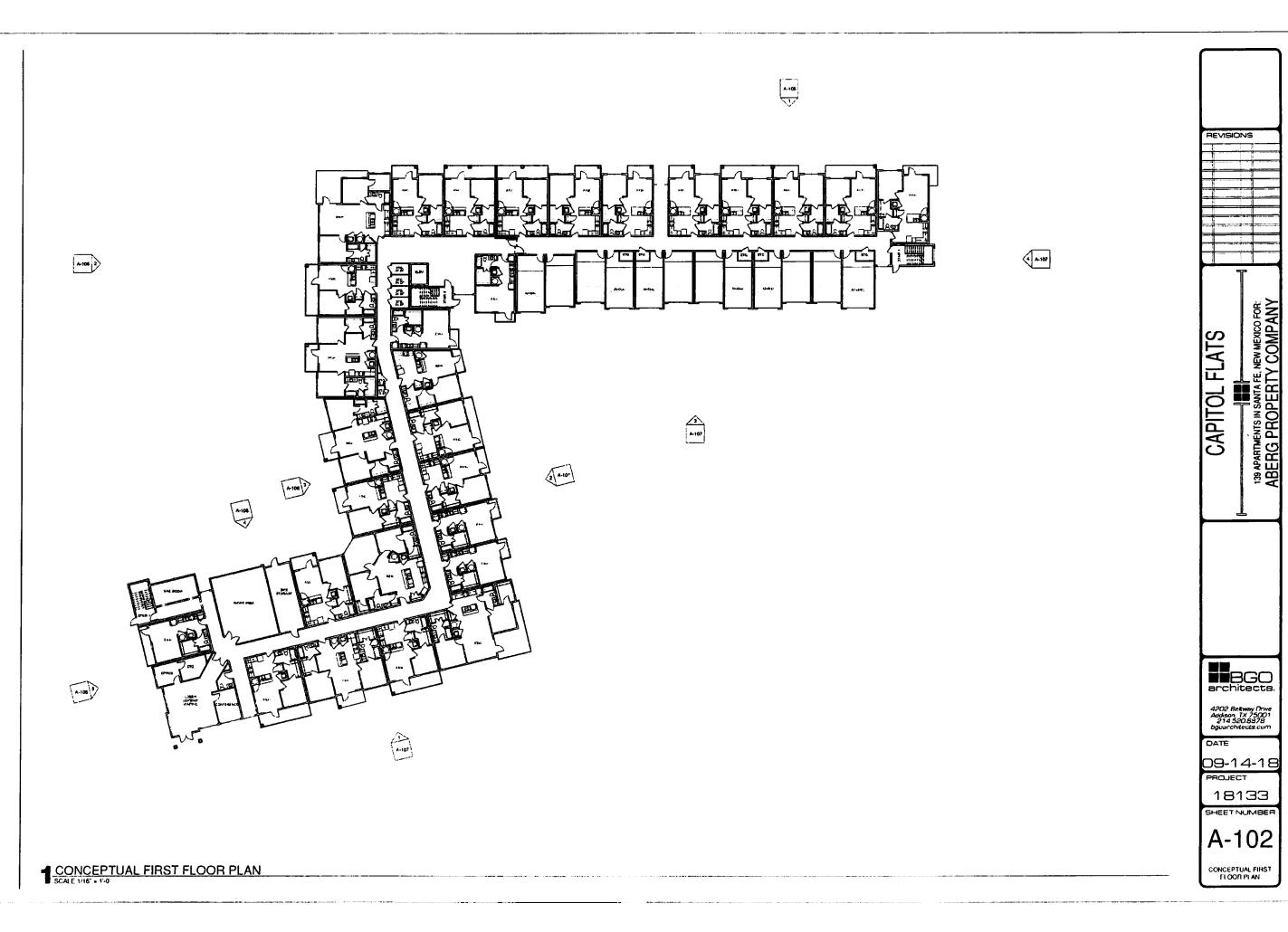


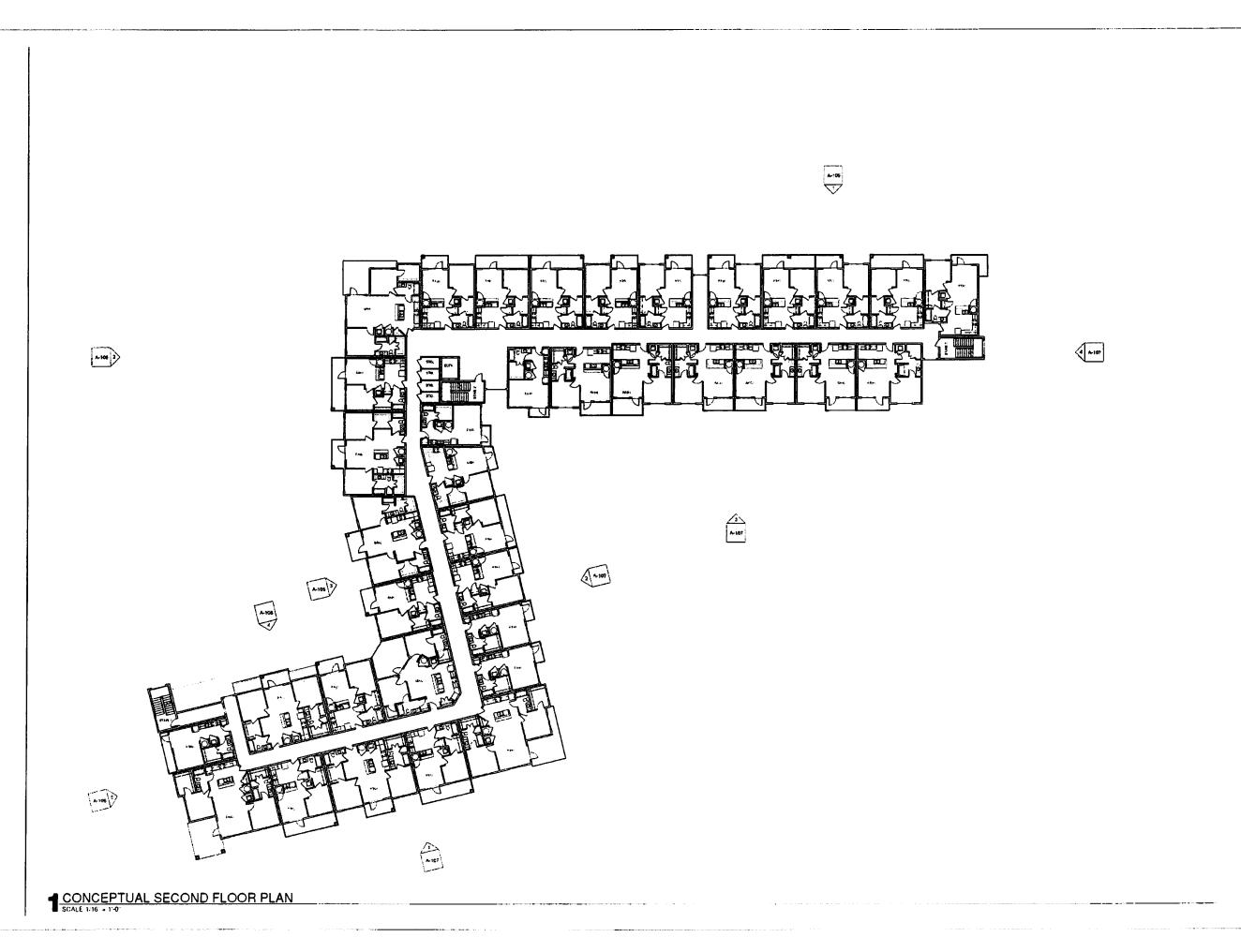
B3 CONCEPTUAL TWO BED TWO BATH 1,056 S.F.



B1 CONCEPTUAL TWO BED TWO BATH 948 S.F.







REVISIONS CAPITOL FLATS 139 APARTMENTS IN SANTA FE, N ABERG PROPERTY

BBGO architects.

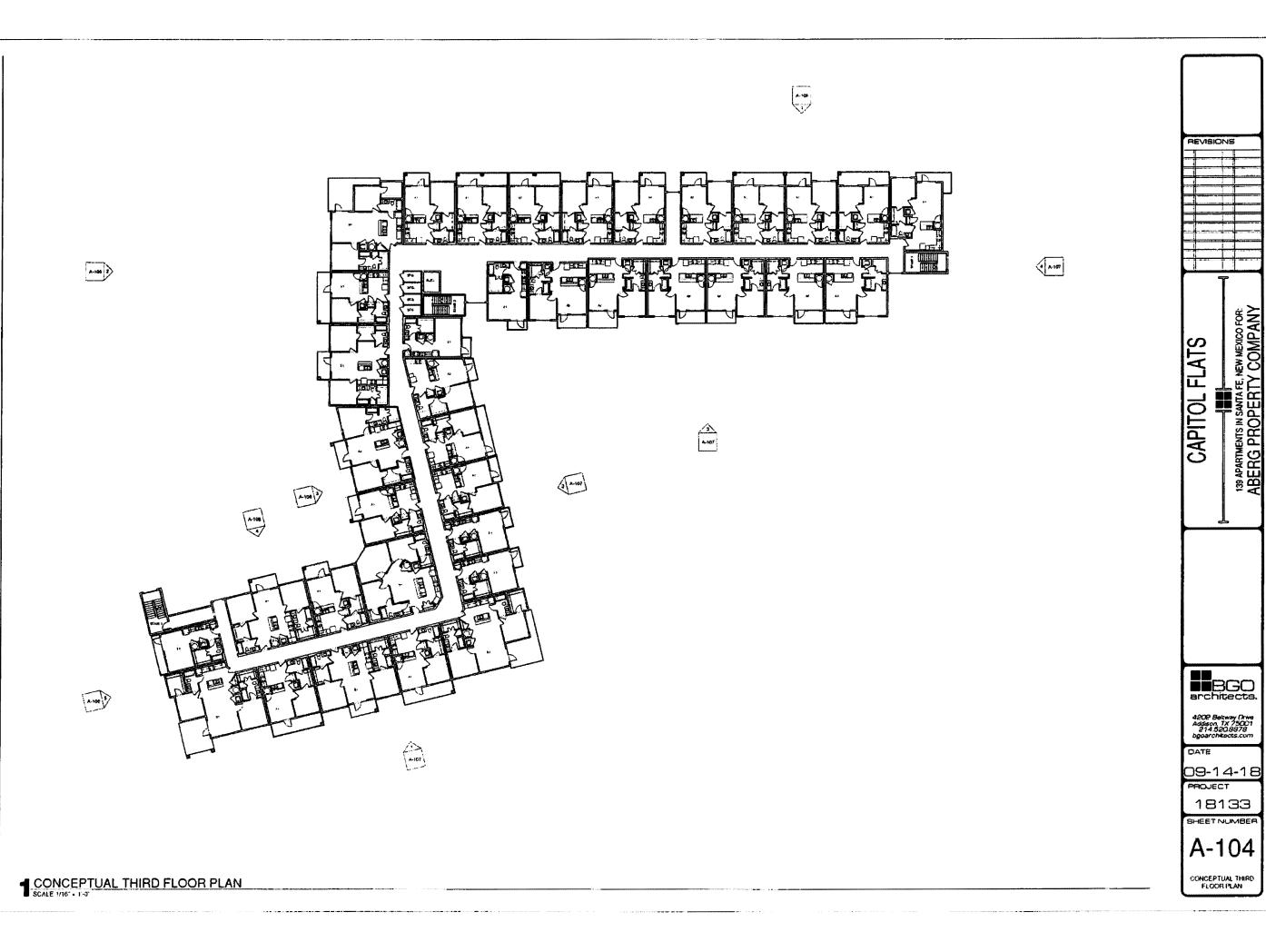
4202 Beltway Drive Addison, TX 75001 214,520,8979 bgoarchitects.com

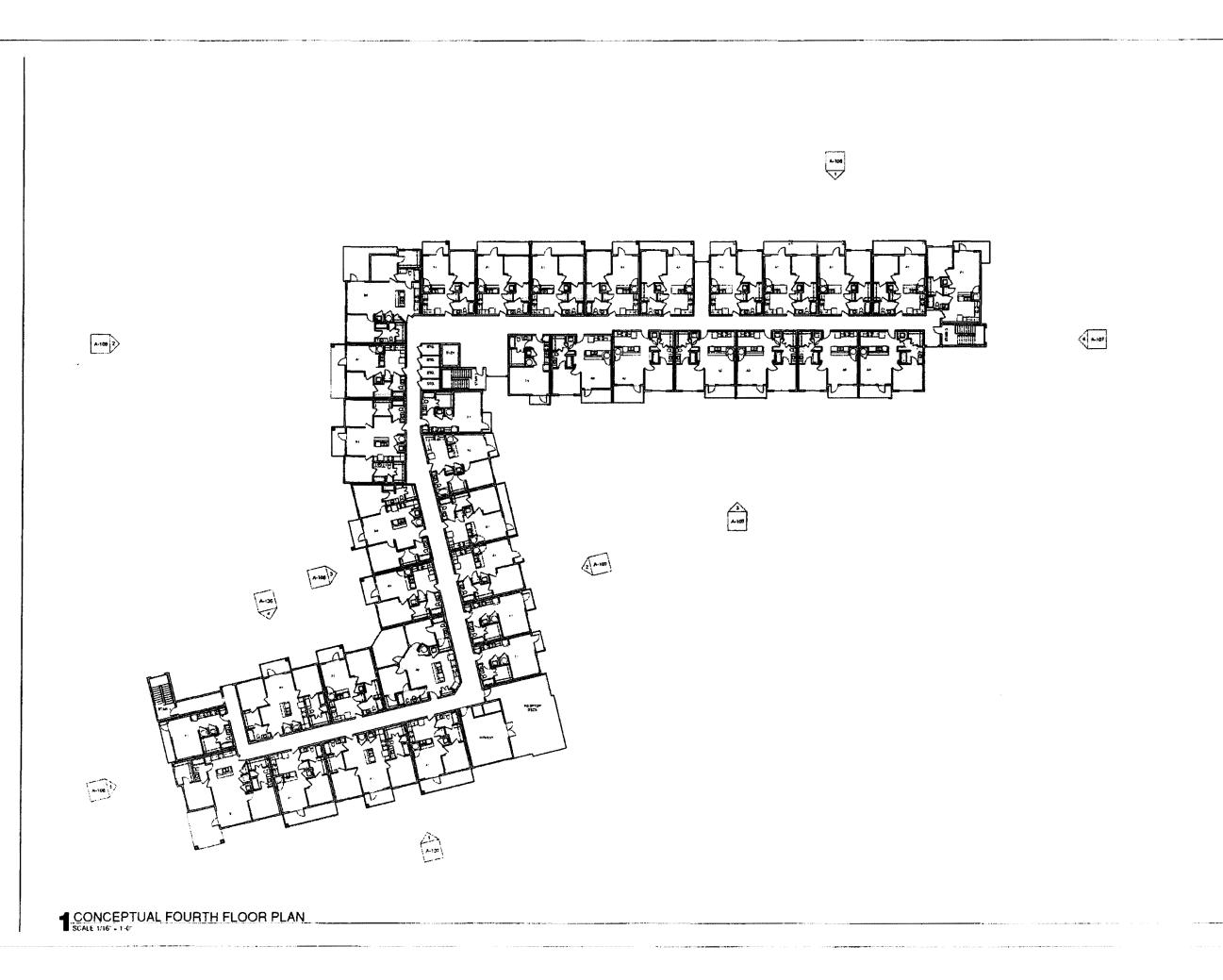
09-14-18 Project

18133 SHEETNUMBER

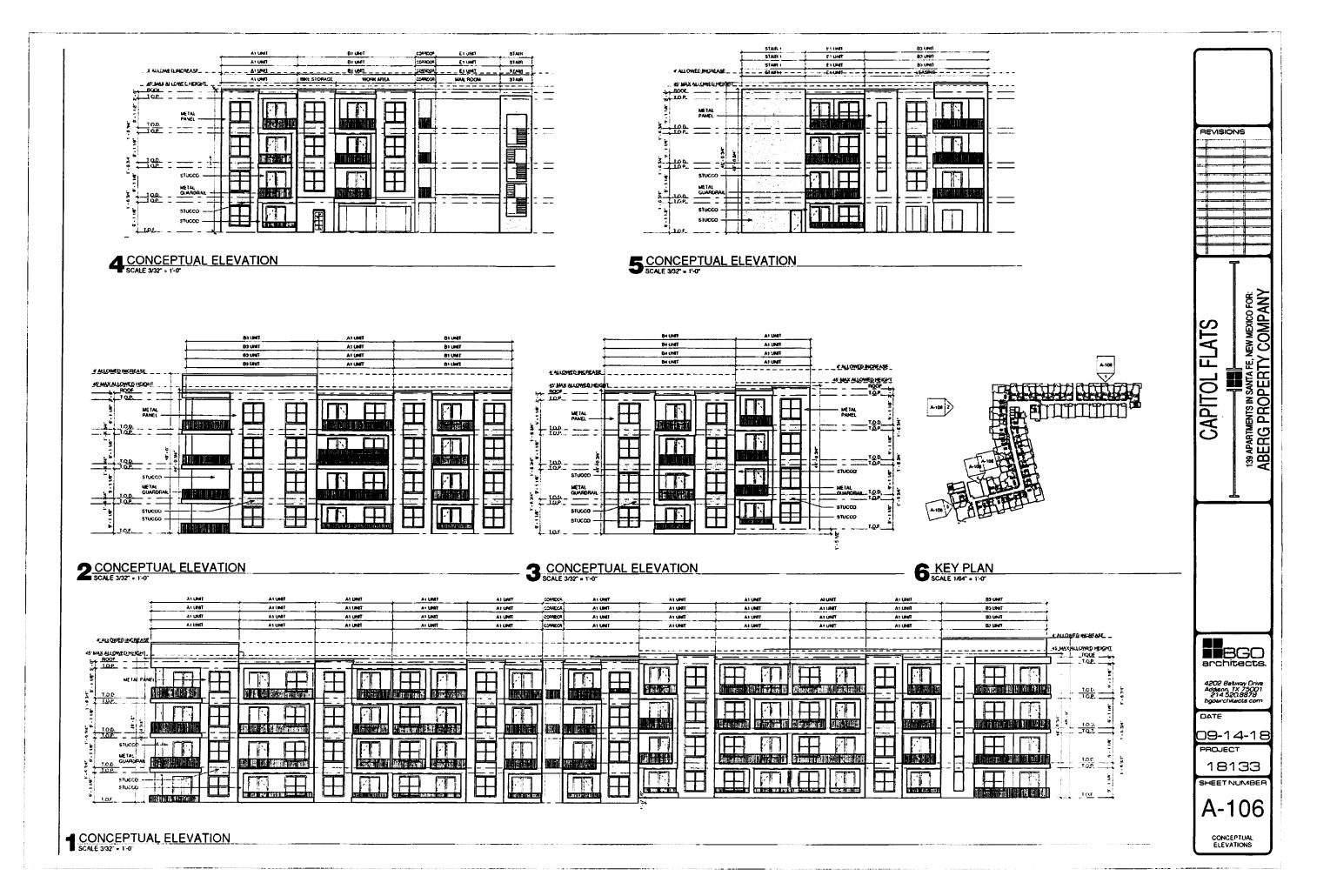
A-103

CONCEPTUAL SECOND FLOOR PLAN

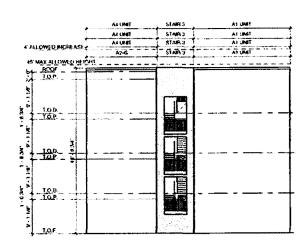




REVISIONS 139 APARTMENTS IN SANTA FE, NEW MEXICO FOR: ABERG PROPERTY COMPANY CAPITOL FLATS BBGO architects 4202 Beltway Drive Addison, TX 75001 214,520,8878 bguar chitects.com 09-14-18 PROJECT 18133 SHEET NUMBER A-105 CONCEPTUAL FOURTH







4 CONCEPTUAL ELEVATION
SCALE 3/32 - 1'-0"



A-107

5 KEY PLAN
SCALE 1/64" x 1'-0"

2CONCEPTUAL ELEVATION

B1 UNIT 8: UNIT $oxed{\mathbb{H}}$ 田 H HI II DEPONIES PIGHE HA! $oxed{\mathbb{H}}$ 田 er ere alle H i i

CONCEPTUAL ELEVATION
SCALE 3/32" - 1'-0"

BBGO architects.

138 APARTMENTS IN SANTA FE, NEW MEXICO FOR: ABERG PROPERTY COMPANY

CAPITOL FLATS

REVISIONS

4202 Beloway Driva Addison, TX 75001 214 520 8878 bguerchitects.com

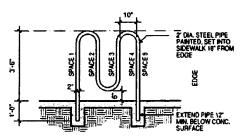
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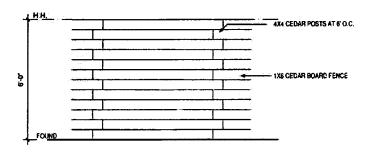
18133

A-107

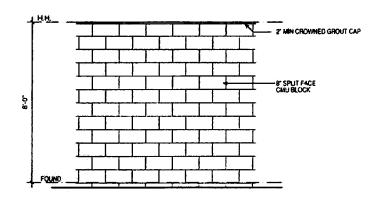
CONCEPTUAL ELEVATIONS



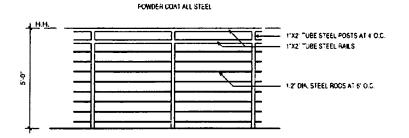
6BIKE RACK DETAIL SCALE: 1/4"=1"-0"



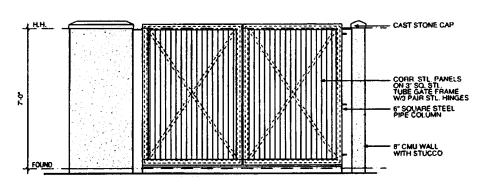
5 ELEVATION - CEDAR FENCE



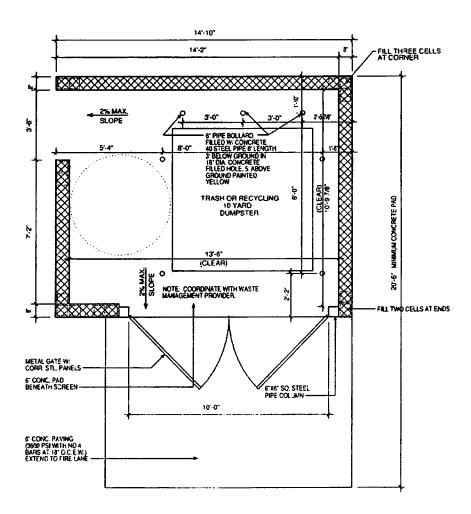
4 ELEVATION - CMU WALL SCALE: 1/4"-1"-0"



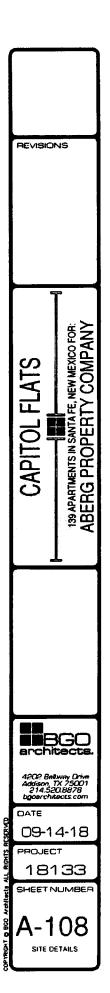
3 ELEVATION - WROUGHT IRON FENCE SCALE 1/4"-11-0"

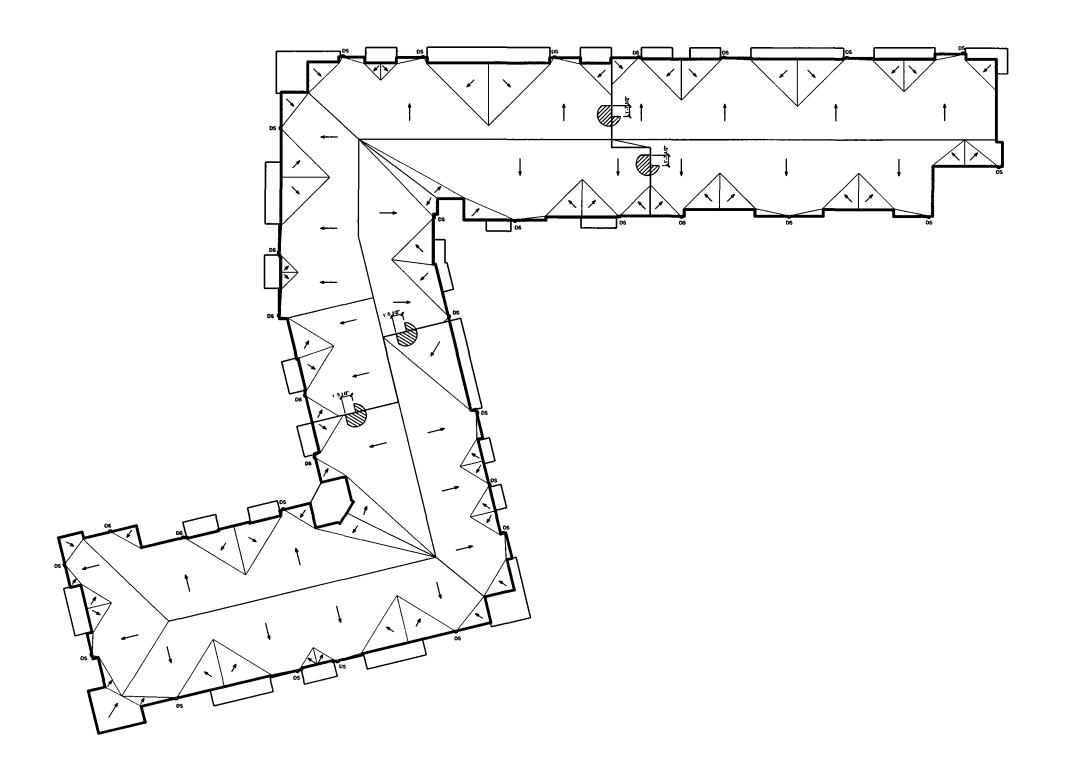


2 TRASH ENCLOSURE-FRONT ELEVATION
SCALE: 102" = 11-0"



TRASH ENCLOSURE- 10 YARD UNIT



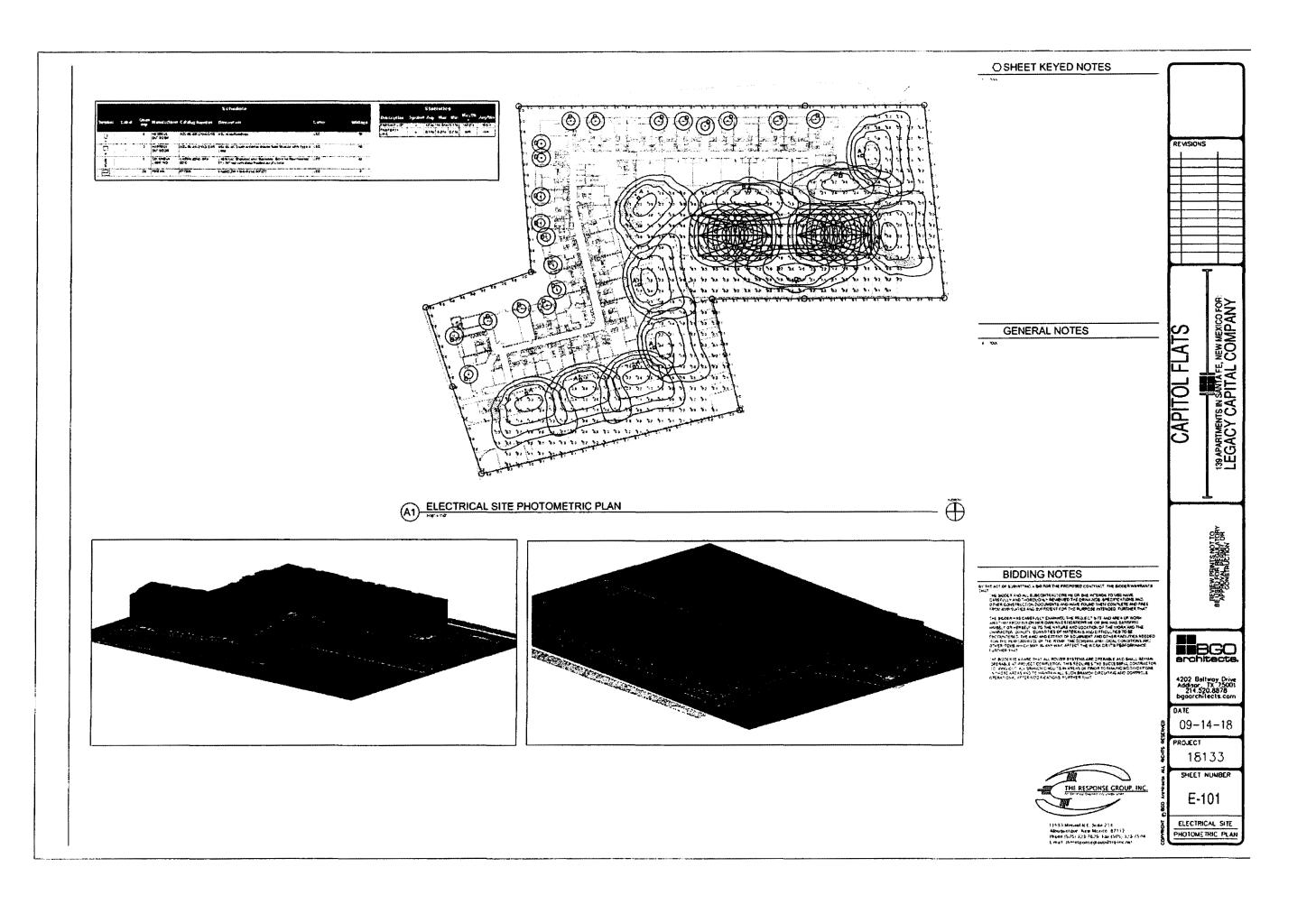


REVISIONS CAPITOL FLATS 139 APARTMENTS IN SANTA FE, I BBBGO architects. 4202 Beltway Drive Addison, TX 75001 214 520 8878 bgoarchitects.com 09-14-18 PROJECT 18133

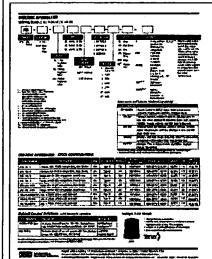
A-109

CONCEPTUAL ROOF PLAN

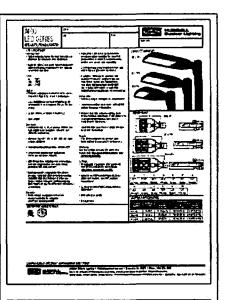
1 CONCEPTUAL ROOF DRAINAGE PLAN SCALE: 1/16° • 1'-0"

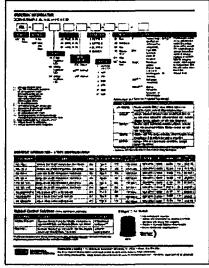




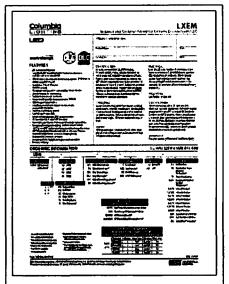


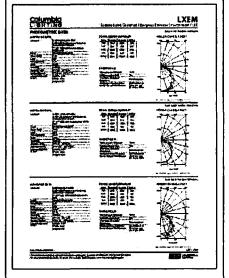


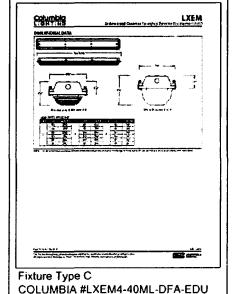


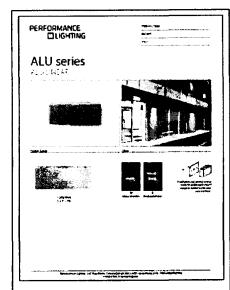


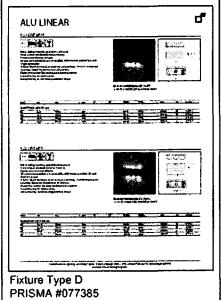
















REVISIONS

139 APARTMENTS IN SANTA FE, NEW MEXICO FOR LEGACY CAPITAL COMPANY

BEVIEW PRINTS NOT TO BEUSED FOR REGULATORY APPROVAL PERMIT OR CONSTRUCTION

BBBGO architects

CAPITOL FLATS

GENERAL NOTES

- i, al nore detaled de dese plans and perforad under des critact same. Es construcied de accordance with the prolect sacricators and the prolect experimenta report, dese appucable, new accord public nores standangs simle
- 2 THE COMPACION SHALL ASIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, MILES AND F
- 3. PRIOR TO CONSTRUCTION, THE COMPRACTOR SHALL FIELD MEMOTY THE BORGONIAL AND MERICAL LOCATIONS OF ALL PORTITUAL GESTRUCTIONS BICLIONIS ALL UNDERSACION LIBRARIES. SHEALD A CONFLICT EXIST, THE CONFIDENCIAN SHALL NOTIFY THE CONSTRUCTION OSSERVES OF CONTRUCT OF SHALL NOTIFY THE CONSTRUCTION OF STREET, TO PROVIDE TO SHALL THE CONFLICT CAN BE RESIDED WITH A BRIMBAU AMOUNT OF ORLAY.
- 4. THE CZ) REGIONE GAYS PROOF TO ANY ENCAYABOUL THE CONTRACTOR SHALL CONTACT LIVE COCATING SERVICE FOR LOCATION OF EXISTING UTILITIES.
- 5. ALL DECTRICAL, RELEMENTE, CARLE TV, CAS, MIO STHER URLITY LINES, CARLES, MIO APPARIENMANES DISCONIRERED DURMING CONSTRUCTION THAT REQUIRE RELOCATION, SMALL BE COOPERATED WITH BHAY URLITY. THE CONTRICTER SMALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSIANY URLITY ADJUSTMENTS. NO MORPHOUN COMPUTED AND ALL NECESSIANY URLITY AND ALL NECESSIANY URLITY COMPANY WORK CERNS. THE COMPANY OF A PROPERTY OF ALL OF URLITY CREWS TO PERFORM THERE REQUIRED NORK.
- 0. THE COMPACTOR IS RESPONSIBLE FOR PROFECIME ALL EXISTED UPLITY LINES WINDOW THE CONSTRUCTION AREA. ANY DAMAGE TO DISTING FROLINES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPARED OR REPAID AT THE CONTRACTOR'S DIPOSE, AND APPROVED BY THE CONSTRUCTION OSSIGNEY.
- 7. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OF PROJECT LIMITS. ANY EMANAGE TO ASSAUGHT PROPERTIES BESIGNING FROM THE CONSTRUCTION PROCESS. SHALL BE REPARED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- H. Overheat partic lars. Be confactor sall hot since any equadit or ocsolated traffic lars. Be confactor sall hot since any equandit or example of the confactor sall hot since any equandit or example.
- 9. THE CONTRACTOR SWALL OBTAIN ALL FIC MECKSSARY POINTS FOR THE PROJECT PROFE TO COMMUNICAC CONSTRUCTION (I.E., BARRICHOME, TOPSOL OSTAMBANICE, EXCANTION POINTS, LPA STORM MATER PURAITS, CTC.).
- IC. ALL PROPERTY CORNUES DESTROYED DUBNIC CONSTRUCTION SHALL BE RUPLACED AT THE CONTRACTOR'S CIPERSE. ALL PROPERTY CORNERS MUST BE RUSET BY A REDISTORED LAND SUBVICTOR.
- 18. THE CONTRACTOR SHALL PREPARE A CONSTRUCTOR TRAFFIC CONTROL AND SIGNING PLAN AND OBTAIN APPROVAL OF SUCH PLAN FROM SEC OUT OF SANTA PL. TRAFFIC DEMOCRATION OF ARREST, FROM TO SECROBED MY CONSTRUCTOR MORE ON OR ADJACENT TO CONTRACT STREETS.
- 12. ALL BANKLADES AND CONSTRUCTION SIGNAC SHALL COATON TO APPLICABLE SCHOOLS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCH), US DEPARTMENT OF TRANSPORTATION, LARSE EDIDON.
- 13. THE CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BURRELOCS AND SIGNIC AT ALL TRIES. THE CONTRACTOR SHALL MERTY BE PROPER LOCATION OF ALL BARRICADING.
- 14. BE CONTRACTOR SHALL TAKE ALL STEPS HECESSART TO CONFORM WITH EPA REQUIREMENTS, INCLUDING COMPLIANCE WITH IMPOES PHASE 2 REQUIREMENTS.

GRADING NOTES

- I. DODY AS PROMED HORDA, GRADNO SHALL BE PORGRADD AT THE CLEVATIONS AND IN ACCORDANCE WITH THE ESTAGES SHOWN ON THIS PLAN.
- 2. THE COST FOR REQUIRED CONSTRUCTION OUST AND EROSION CONTROL NEASURES SHALL BE MODERFUL TO THE PROJECT COST.
- 3. ALL TORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAYABLIST RESTALLATION, AS SHARIN DIS THIS PLAN SHALL BY CONSTRUCTED IN ACCORDING TO THE PROPERTY OF TH SPECIFICARDIS (TIRS) PRIORITY), AND/OR THE NEW HEIRCO STANDARD SPECIFICARDIS FOR PUBLIC NORIS (SECOND PRIORITY).
- $\pmb{4}$. Early slopes shall but exceed 3 horizontal to 1 yerical unless show otherwise.
- 5. It is the shelf of these plans that this contractor simil not perform any work cultime of the property boundaries except as recurred by this plan.
- $\boldsymbol{s}.$ The combination is to dissure that no soil enodes from the site onto asymcthic property on public right-of-way,
- 7. A DISPOSAL SITE FOR ANY M ML EDZESS EUCAVARON MARERMA, AND UNSURIABLE MARERAL AND/OR A BORROM SITE CONTAINING ACCEPTIMENT FILL MARENAL SAMIL BE OBTAINED BY THE CONTRIBUTION OF CONSERVED, ML COSTS BROWNED IN OBTAINING A DESPOSAL OR BORROM SITE AND MALE LOSTS BROWNED IN OBTAINING A DESPOSAL OR BORROM SITE AND MALE ID OR FROM SITE AND MALE CONSIDERED INCOMENTAL TO RE PROJECT AND NO SEPARAE MEJISHERMENT OR PAYMONT SMALE BE MADE.
- & paying and rowney crades simil be +/- b." from film revarons. Pag revaron shall be +/- ρ of from bullong flam delyaron.
- 8. All proposed contours reflect top of parenent elevations in the parions area and must be adalisted for nedhans and islands.
- IA. MORFY ALL ELEVATIONS STIGMA ON PLAN FROM DASS OF ELEVATION CONTROL STATION PRIOR TO REGIMENS CONSTRUCTION.

UTILITY NOTES

- 1. MES CONTRACTOR SHALL DE RESPONDOLE FOR THE COURLET HESTALLADON OF ALL MODE
 MELAND TO MEDIANCIA, UNITED X 5 STOM THE SE TAIL MODERNIC. REPORTING, DANGEL, MAN THE SET STOPS AND MODE S, STOME LEVE, STEIN, CLAMAC,
 AND STRUCTURE, AND MODERN HOT AND/THE OF THE ANDERSEC OR GHARELE BUT, IN PROPER
 METALLOD AT THE CONTRACTOR'S EMPORE, AS DIRECTOR.
- 2. MONDAY NETTES OF COMER SHIEL BE: 46" FOR SAVERLINES AND 46" FOR SEVER, COCKET AT GRADUIC CONCESSION.
- X ALL WORK DETAILED ON THESE PLANS TO BE PORFORMED LINEOF COMPACT SIMIL DUCKY!
 AS ORIGINASE STATED ON PROMOCE OF MERCOL BE CONSTRUCTED IN ACCORDANCE WITH THE
 MAKED LINEOTHE PLANNING CODE & HEPA 24, LATEST EXPROL
- $t_{\rm c}$ which then shall be distalled proof to pareners, cars and offer, and/or specific, as applicable.
- 3. BOUGH GRADING OF SIZE (\$155) SHALL BE COMPLETED PRIOR TO DISTALLATION OF URLITY-LINES.
- 4. CONTENCTOR NULL BE RESPONSIBLE FOR CONNECTIONS TO BUILDING DRAWN LIMES AND ALL MEDIESSARY PATTINGS.
- 2. ALL VALVES SAME BE ANCHORED PER HOMPHIA STANDARD BAG 2333.
- α . FRE LINES SHALL USE PIPE HATERIALS INDOPINITIES LABORATORES LISTED AND APPROVED FUR THE ROMOTE.
- \$. CONSINCTOR SHALL BE RESPONSIBLE FOR ALL YATCH NETTO, FIRE LINE, AND SCHOL HOUGH, PROCEED FOR BESALLIATURE. CHIEFLY SHALL BE RESPONSIBLE FOR BRUTT COPINISON DHINGES, PROCRATA AND OTHER SPECIAL INSSESSMENTS.
- 18. CONTRACTOR SHALL YEARY SPERTS AND LOCADOUS OF EXISTING WATER/SAS LIACS FROM THE SECRETARY WITH A CONTRACT SHALL AS BROADED TO ATTENDOR OF THE ORDINATE WATER AND MISSELF PRIOR TO RETURNING WITH.
- 1). COMMISCION SHALL MUTHEY THE AUTHORITY HAVING JUESDICTION FROM TO UNTILLIATION OF FRE SERVIC LINES, AND PRINCE OF RESTRICE OF ALL UNDERJOES, CONTRACTOR SHALL COUPLE, SHOUL AND SHALL THE "COMPLICATION BUILDING, & EST EXPERIENCE FOR INCOMPLINE POPUM" IN ACCOMPLINED. THIS WIPA 24.
- 12. CONTRACTOR SHALL HISTALL HECHWICH, JEHT RESTRUKTS ON EDSTRIC WIER LINES IN ACCORDANCE WITH CITY OF SANTA TE STANDARD DETAILS HAN AND HOR.
- 12. ALL MANGEL COMES, WE'VE COMES AND WILLIN APPRICEMANCES WHAN LINES OF COLUMN SHALL BE MAJESTED TO FRANCED GROUP.
- H. RETAIL CONDICTE CRELATS FOR HE MANNELS HID THENES LOCATED IN PANCE MICAS PER INMPIRE STANDARD OCTAIL SHIP.
- 15. CONTRACTOR SHALL COORDINATE HEW GAS SERVICE, AND CAS RELOCATION WITH HEW INDICES COMPANY.

NOT FOR CONSTRUCTION REVISIONS 139 APARTMENTS IN SANTA FE, NEW MEXICO FOR:
ABERG PROPERTY COMPANY CAPITOL FLAT

BEUSEN PRINTS NOT TO APPROVAL PERMIT OF CONSTRUCTION SITE DEVELOPMENT ISSUED ON 00-17-18



4202 Beltway Drive Addison, TX 75001 214,520,8878 bgoarchitects.com

09-17-18

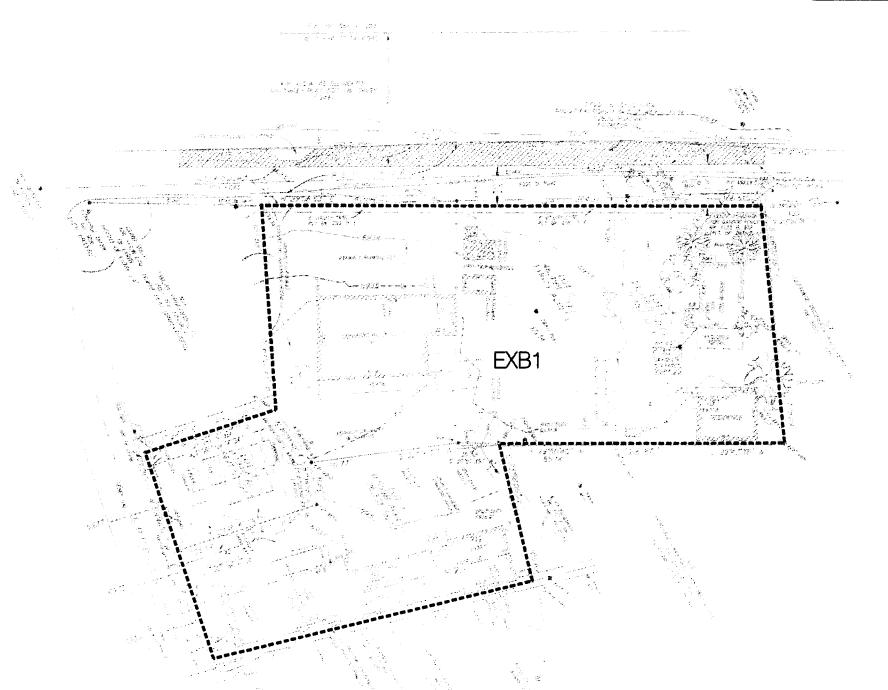
PROJECT 18133

SHEET NUMBER C-001

CIVIL GENERAL NOTES

Coreral Yoles BORTLGA P. (20190170\CDP\Plens\Genera\20190170 fd, 14 - 546-2019 + 11.4\cm, Polited by:

Bohannan ... Huston



P:\20190170\CDP\Pans\Genera\20190170_Existing Fit; 14-Sqr-2018 - 11:45:on, Plotted by: BOREGA

Capitol Flats, Santa Fe, NM Existing Conditions Basin Dato Table										
BASIN	Ares	Area	ment Po	ercentag]0\$		Q(100)	Q(100)	WTE	V(100)346
ID.	(SQ.FT)	(AC.)	A	8	C	D	(cts/ac.)	(cfs)	(inches)	(CF)
EX-B1	102326	2.35	0.0%	6.0%	20.0%	74.0%	4.36	10.2	2.49	21200
TOTAL	102326	2.35	 			 -		10.2		21200

THE METHODOLOGY SOLECTED TO COMPUTE REMOT VOLUMES, PEAK FLOW RANES, AND REMOT INTOROCHAPMS

THE STE SLOPES TO A LOW POINT NEAR DE RORTHWEST COINER OF THE PARCEL, FOR THIS REASON, IT WAS UNICKLOPED CONDITION IS 10.2 (I'S. THE DISTING ONSTIE BASIN AND LAND TREATMENTS ARE SHOWN ON THIS

ANTANIED. TOTAL PEAK DISCHARGE FROM DIE SIE IN THE DEVELOPED CONSTRON WAS CALQULARED TO BE HAIB

Be 100-year, 24-hout peak flow rate in the existing coartion. We calculated because is gas and is within the teleplance of the auditors retroductory, and devanage manage-out play depairstrates THAT THE CHISTE CRANAGE DESIGN IS AN ACCORDANCE WITH THE CITY OF SANTA FE LAND LIST CODE.

> LEGEND ---- EXISTING DRAMAGE BASIN



FOR INFORMATION ONLY

Bohannan & Huston

NOT FOR CO	BOOK IN STRUCTION
CAPITOL FLATS	139 APARTMENTS IN SANTA FE, NEW MEXICO FOR: ABERG PROPERTY COMPANY
SITE DEVELOPMENT ISSUED ON 09-17-18	FEVER PRINTS NOT TO APPROVE PERMY OR CONSTRUCTION





4202 Beltway Drive Addison, TX 75001 214.520.8878 bgoarchitects.com

09-17-18

PROJECT 18133

SHEET NUMBER

C-002

EXISTING DRAINAGE MANAGEMENT PLAN

Capitol Flats, Santa Fe, NM Developed Conditions Basin Data Tab

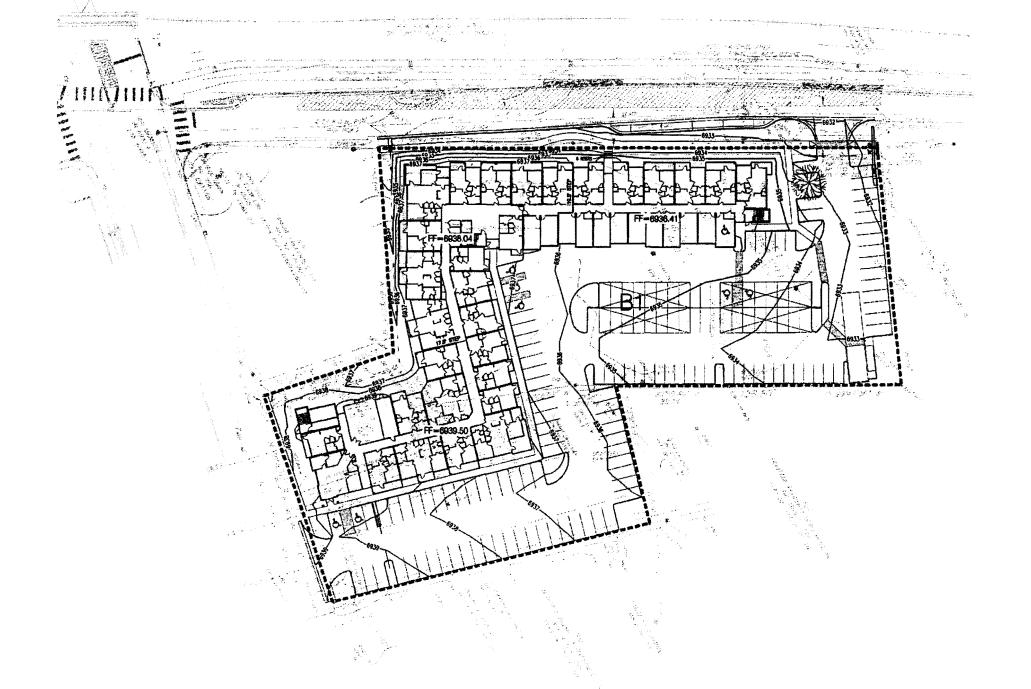
BASIN	Area	Area	Land T	reatmen	Percenta	ge6	Q(100)	Q(100)	WTE	V(100)1
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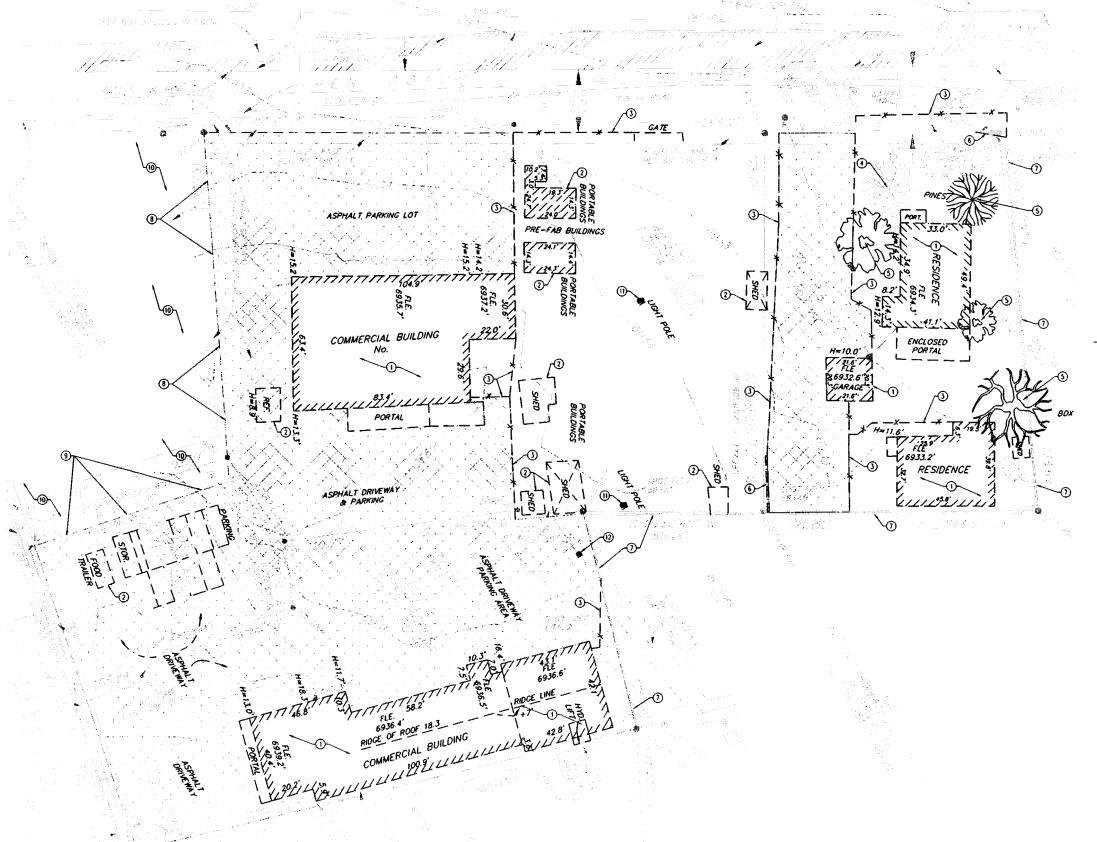
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139 APARTMENTS IN SANTA FE, NEW MEXICO FOR:
ABERG PROPERTY COMPANY CAPITOL FLATS BE USED FOR REGULATORY APPROVAL BEHALL CONSTRUCTION SITE DEVELOPMENT ISSUED ON 09-17-18 #BGO architects. 09-17-18 PROJECT 18133 SHEET NUMBER C-003 PROPOSED DFMINAGE MANAGEMENT PLAN



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FOR INFORMATION ONLY



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- 3. SEE LANDSCAPE PLANS FOR NOTES RECARDING SALVACE OF DISTING IRRIGATION EQUIPMENT.

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○ KEYED NOTES

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- 2. EXISTING PORTABLE BUILDING TO BE REMOVED & DISPOSED OF.

- 6. REMOVE & DISPOSE OF EXISTING WALL.
- EXISTING RETAINING WALL, SCREEN WALL OR FENCE AT PROPERTY LINE TO REMAIN.
- 8. SAW-CUT EXISTING ASPHALT PAVEMENT AT PROPERTY LINE TO A STRAIGHT CLEAN EDCE.
- SAW-CUT EXISTING ASPHALT PAVENENT AT EDGE OF DRIVEWAY EASEMENT TO A STRAIGHT CLEAN EDGE.
- 10. EXISTING ASPHALT PAVEMENT TO REMAIN.
- 11. REMOVE & DISPOSE OF EXISTING LIGHT POLE.
- 12. REMOVE & DISPOSE OF EXISTING POWER POLE.

LEGEND



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SITE DEVELOPMENT ISSUED ON 09-17-18

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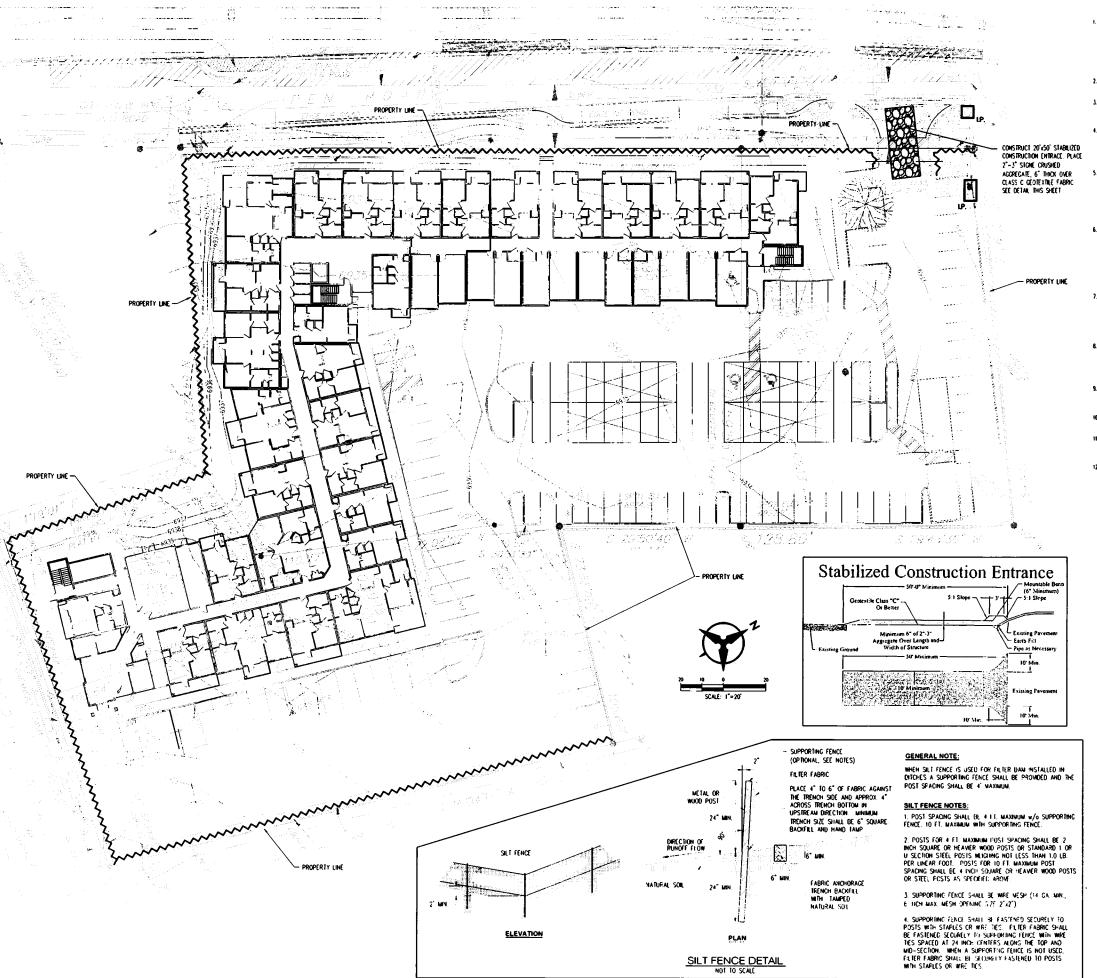
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SITE DEMOLITION PLAN

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GENERAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULFILLING ALL MECESSARY MATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES) REQUIREMENTS INCLUDING, BUT NOT LABITED TO, OBTAINING AN IMPOES PERMIT PRIOR TO CONSTRUCTION, FILLING OUT THE MOTICE OF INTER (MO) APPLICATION, AND TILLING OUT THE MOTICE OF TERMINATION (MOT) APPLICATION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE IMPLEMENTATION OF AND INSPECTION REPORTS FOR THE STORM WATER POLLUTION PREVENTION PLAN
- DE CONTRACTOR SHALL MANTAM A COPY OF THE APPROVED SUPPP ON-SITE AT ALL TIMES, AND SHALL COUPLY WITH THE REQUIREMENTS MODICATED ON THAT PLAN.
- RE COMPACIOR SHALL CONFORM TO ALL OTY, COUNTY, STATE AND FORERAL OUST AND LINOSON CONTROL REGULARORS. THE CONTRACTOR SHALL PREPARE AND GRIAM ANY MECESSARY DUST OR CROSION CONTROL PORMITS FROM THE REGULATORY ACCIDES.
- CONSTRUCTION MEAS SAMLE SE WATERED FOR DUST COMPROL IN COMPLIANCE WITH OTY OF AUBICUCROUS ORDINANCES. THE CONTRACTOR SAMLE SE RESPONSIBLE FOR LOCATING MO SUPPLYING WATER AS REQUIRED. WATERING, AS REQUIRED FOR CONSTRUCTION AND DUST CONTROL, SAMLE SE CONSISTED INCODENTA TO CONSTRUCTION AND NO MEASURDIEGHT OR PAYMENT SHALL SE MADE THEREFOR.
- ANY AREAS DISTURBED BY CONSTRUCTION AND NOT COVERED BY LANDSCAPING OR AN IMPERIOUS SURFACE SHALL BE REVECTATED WITH HARTINE CRASS SEEDING, WHICH CONSTRUCTION ACTIVITIES CRASS AND LURIN DISTURBING ACTIVITIES WILL OF RISAND WITHOUT 10 AND STANDLY, AND HE SURSIEGH SHALL BY WITHARD HELES MICHAED OTHERWIS ON THESE PURS ON ON THE LUNDSCAPING PLANS HARTING CRASS SECURING SHALL BE QLASS A SEEDING POR SECTION 1012 OF THE NEW MERCO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, APPRA MM CHARTER, LATEST EDITION.
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 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP AND REPORTING OF SPILLS OF HAZARDOUS MATERIALS, ASSOCIATED WITH THE CONSTRUCTION SHE. HAZARDOUS MATERIALS INCLUDE CASCIDED, BESSE FULL WORKS OUR, SOLVEN, CARMOLES, PARISE, ETC. WHICH MAY BE A BREAT TO THE DIMPROMEDIT. THE CONTRACTOR SHALL REPORT THE DISCOREY OF PAST OR PRESENTLY SPILLS TO THE HEW MCIOCO DIMPROMEDIT OFFARTMENT (DISCOREY OF PAST OR PRESENTLY SPILLS TO THE HEW MCIOCO DIMPROMEDIT OFFARTMENT (DISCRETACY RESPONSE TRAIN AT 505-827-9129.)
- THE CONTRACTOR SHALL COURTY WITH ALL APPLICABLE LOCAL STATE MID FEDERAL REGULATIONS CONCERNING SURFACE MID UNDERGROUND WATER. CONTACT WITH SURFACE MATER OF CONCERNICION COURTMENT AND PRESONNEL SHALL BE MINIMAZIO. COURTMON MANTENANCE MOR REFLUENCE PROPERATION SHALL PROPERTIES ON AN ENFORMENTALLY SAFE MANNER ON COMPLANCE WITH CONFRANCIAT REGULATIONS.
- WHERE PRIVATE STORM HILETS ARE SUSCEPTIBLE TO INFLOW OF SILT OR DEBRIS FROM CONSTRUCTION ACTIVITIES, PROTECTION SHALL BE PROVIDED ON THEIR UPSTREAM SIDE
- NO OFFSITE STORM DRAIN INLETS SHALL BE CONERED. CHILY DISSITE/PROPOSED INLETS CAN BE CONERED DURBING CONSTRUCTION.
- If stomant escapes the construction site it shall be romoned from the adjacent property or public right-of-thay at the time of occuprence. Off-site traciung of stoment shall be siept at the dup of each day.
- PROJECT IS REQUIRED TO MAINTAIN A REGIMENT OF STREET SIKEPING AND CLEAN UP MEASURES IN THE EVENT OF TRACK OUT TO MINIMAZE AND PREVENT OFF SITE CONVEYANCES DURING CONSTRUCTION.

EROSION CONTROL NOTES

Crosion Control Schedule and Sequencing. See Shippi Plan for operator responsible for each control measure usted and BMP details.

- ROUGH CRADING INSTALL SILT FENCE OR STRAIN WATTLE, STABULKED CONSTRUCTION DUTRINGE AND SEDIMENT POINS WHERE PRACTICAL. INSTALL BEFORE CRADING IF POSSIBLE: IF NOT, THEN CONCURRENT WITH MAJOR GRADING. WATER SHALL BE APPLIED TO STABULKE DISTURBED ANG AS.
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- DURING CONSTRUCTION STORMWATER CONTROL NOTES:

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 ON HAS DRAINING.

- 5. LOCATIONS OF INASH, PORTA-LETS AND CONDUCTE WASH-OUT ON THIS DRAINIC. 6. NO DISCHARGE TO WATERS OF THE U.S. OR USTED WETLANDS. 7. NO OFT-SITE STORAGE OR BORROW AREAS.

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MISTALL SLIT FENCE PER DETAIL THIS SHEFT

INSTALL STABLIZED CONSTRUCTION ENTRANCE PER DETAIL THIS SHEET I.P. INSTALL INLET PROTECTION

Bohannan A Huston



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APARTMENTS IN SANTA FE, NEW MEXICO FOR:
FRG PROPERTY COMPANY

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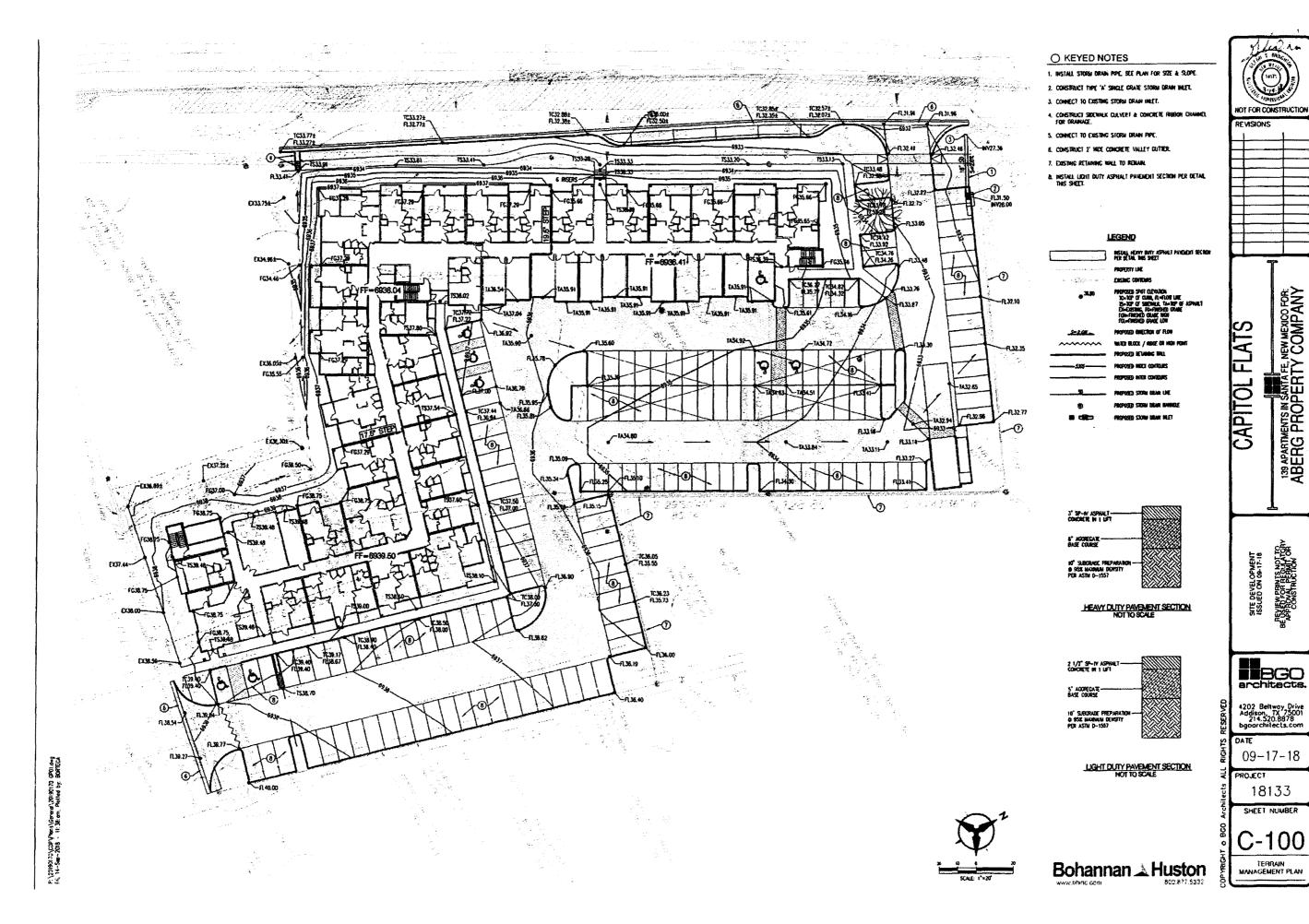
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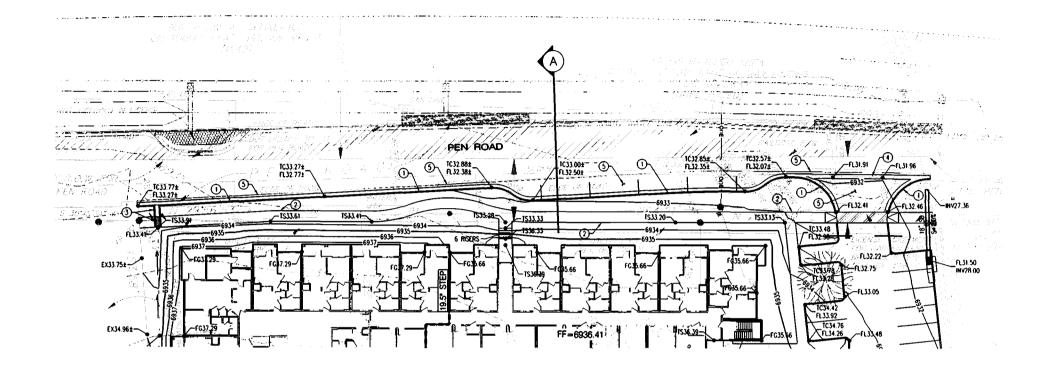
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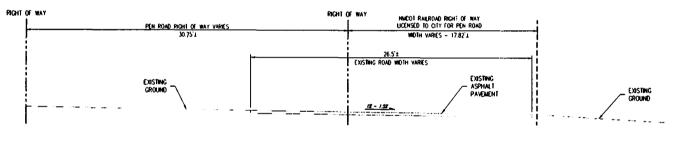
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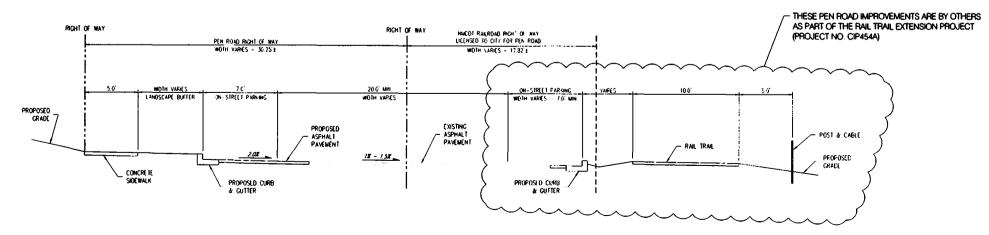
FROSION & SEDIMENT CONTROL PLAN







A PEN ROAD - EXISTING SECTION NOT TO SCALE



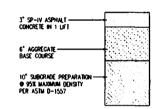
A PEN ROAD - PROPOSED SECTION NOT 10 SCALE

○ KEYED NOTES

- 1. CONSTRUCT CONCRETE CURB & GUTTER.
- 2. CONSTRUCT 5' WIDE CONCRETE SIDEWALK.
- 4. CONSTRUCT 2' WIDE CONCRETE VALLEY GUITER.
- 5. INSTALL ASPHALT PAVEMENT SECTION PER DETAIL THIS SHEET.

LEGEND

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5-2.08	PROPOSED DIRECTION OF FLOW
~~~~	WATER BLOCK / RIDGE OR HIGH POINT
	PROPOSED RETAINING WALL
	PROPOSED WIDEX CONTOURS
	PROPOSED INTER CONTOURS
	PROPOSED STORM DRAIN LINE



PEN ROAD PAVEMENT SECTION NOT TO SCALE







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CAPITOL FLATS

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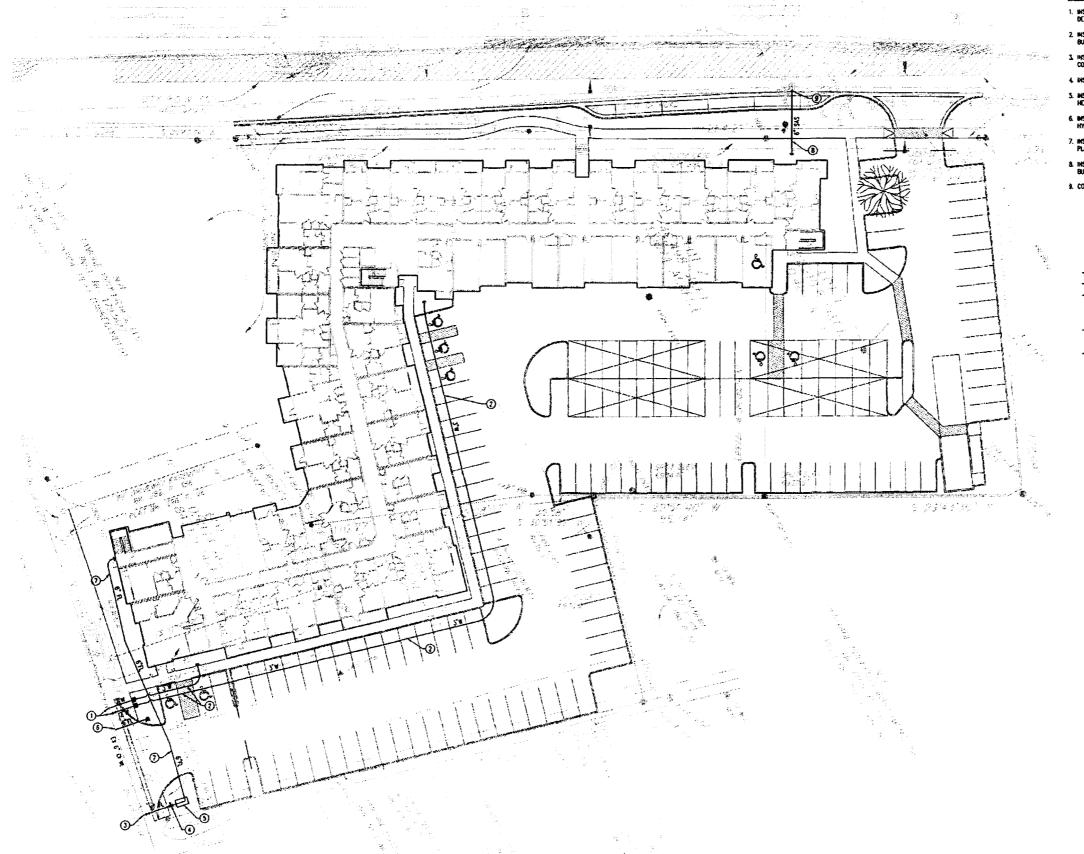
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PEN ROAD PAVING PLAN

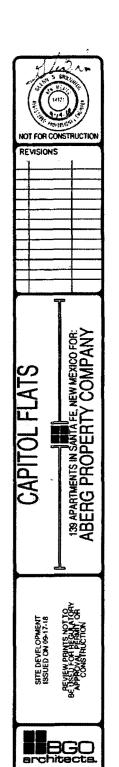


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## O KEYED NOTES

- 1. HISTALL 2" DOMESTIC WATER MOTER SERVICE PER COST STO DETAIL S.
- 2 INSTALL 3" DOMESTIC WATER SERVICE LINE TO WITHIN 5" OF BUILDING, SEE PLUMBING PLANS FOR CONTINUATION.
- I HISTALL 6"16" NO WEE AND 6" CATE VALVE WITH BOX & LID PL
- 4 INSTALL 6" GATE VALVE WITH POST INDICATOR.
- INSTALL 6" REDUCED PRESSURE BACKROW PREVENTOR WIN HEATED ENCLOSURE.
- HYDRANT POR COSF STD DETAIL 7.
- PLANS FOR CONTINUATION.
- B. INSTALL 6" SANTARY SENER SERVICE LINE TO WITHIN 5" OF BUILDING. SEE PLUMBING PLANS FOR CONTINUATION.
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282	PROPOSED SWITTARY SCHOOL USE
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A	PROPOSED FRE UNE
₩	PROPOSES INDICANT
_	PROPOSES CAP
	PROPERTY NAMED AND THE





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SITE UTILITY PLAN

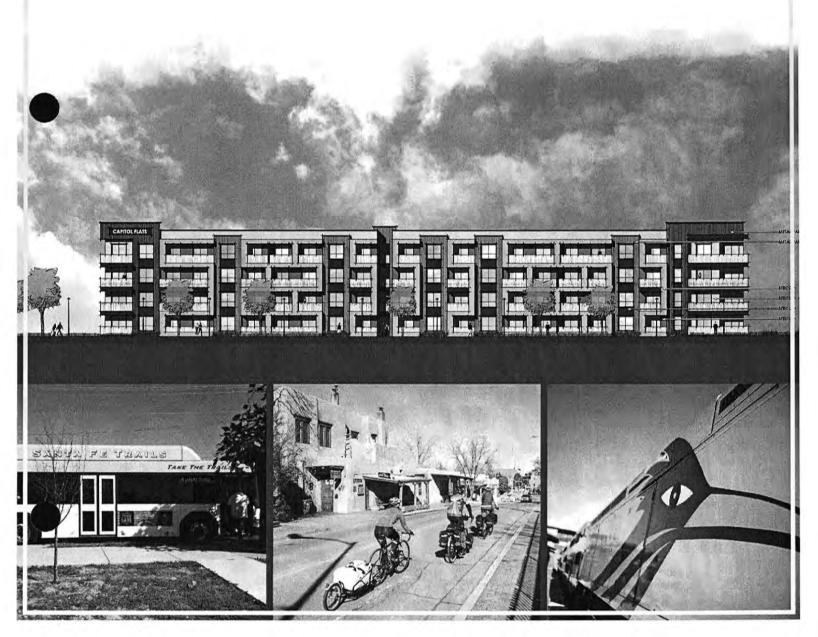


Bohannan L Huston

# Bohannan A Huston



# CAPITOL FLATS TRAFFIC IMPACT ANALYSIS SEPTEMBER 2018



## CAPITOL FLATS TRAFFIC IMPACT ANALYSIS

September 2018

Prepared for:

City of Santa Fe

JENKINS GAVIN

Prepared by:

Bohannan Huston, Inc.

7500 Jefferson St NE

Albuquerque, NM 87109

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ERIC J. WRAGE, P.E., PTIOE SEP

# CAPITOL FLATS TRAFFIC IMPACT ANALYSIS

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## **APPENDICES**

Appendix A Existing Traffic Counts

Appendix B 2018 Existing Intersection Capacity Analysis

Appendix C Forecast Turning Movements and Trip Distribution

Appendix D 2020 No Build Intersection Capacity Analysis

Appendix E 2020 Build Intersection Capacity Analysis and Options Analysis

#### I. INTRODUCTION AND SUMMARY

The Capitol Flats is a proposed 139-unit apartment complex located on 2.34 acres between Pen Road and Cordova Road in the South Capitol area of Santa Fe, New Mexico. The development is considered a transit friendly development because it has direct access to the South Capitol Rail Runner Station, multiple Santa Fe Trail bus routes, and is near many pedestrian trails, retail, and large employment sites.

### A. STUDY PURPOSE

The purpose of the traffic study is to determine the impacts of the proposed improvements on the surrounding roadway network, and to recommend any mitigation measures that may be necessary to support the new development.

#### B. EXECUTIVE SUMMARY

#### 1. SITE LOCATION AND STUDY AREA

The site is located southwest of the St Francis Drive and Cerrillos Road intersection, in Santa Fe, New Mexico. A vicinity map is shown in Figure 1, and the current site plan shown in Figure 2.

The study area consists of the following intersections:

- Pen Road and Cordova Road (existing unsignalized full access intersection)
- Pen Road and St. Francis Drive (existing unsignalized full access intersection)
- Cordova Road and Cerrillos Road (existing signalized full access Tintersection)
- Cordova Road and St. Francis Drive (existing signalized full access intersection)

The intersection evaluations include analysis for the AM and PM peak hours for the following traffic conditions:

- Existing traffic (2018)
- 2020 Completion Year without proposed development (2020 No Build)
- 2020 Completion Year with buildout of the site (2020 Build)

## 2. PRINCIPAL FINDINGS

The traffic analysis shows that under existing 2018, 2020 No Build, and 2020 Build, all intersection will operate at an acceptable level of service (LOS). Construction of the Capitol Flats development will not result in dramatic increases in traffic delay or degrade in LOS.

The forecast entering right turn at the proposed Cordova Road driveway does not satisfy NMDOT State Access Management Manual (SAMM) criteria for addition of a right turn lane. The highest entering right turn volume is forecast to be 11 vehicles. Per the SAMM, for multi-lane urban roadways with 11 right turns (SAMM Table 17.B-2, page 74), the minimum volume in the adjacent through lane for a 30-MPH roadway is 776 vehicles per hour, and the future volume on Cordova is expected to be 341 vehicles in the PM peak hour. Therefore, the SAMM right turn lane criteria is not satisfied, and a right turn lane is not required.

### 3. RECOMMENDATIONS

The development does not have a significant impact on traffic operations, and no improvements are necessary at the intersections.

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Capitol Flats Santa Fe, NM Site Traffic Analysis

Figure #1 Vicinity Map



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Capitol Flats Santa Fe, NM Site Traffic Analysis

Figure #2 Site Plan

#### III. STUDY AREA CONDITIONS

## A. STUDY AREA

The study area consists of the following intersections:

- Pen Road and Cordova Road (existing unsignalized full access intersection)
- Pen Road and St. Francis Drive (existing unsignalized full access intersection)
- Cordova Road and Cerrillos Road (existing signalized full access Tintersection)
- Cordova Road and St. Francis Drive (existing signalized full access intersection)

## B. SITE ACCESSIBILITY

Access to the residential site will be via two (2) driveways. One will be from Pen Road, west of the development and one will be from Cordova Road, south of the development.

## C. DATA SOURCES

The data used in this report consist of the traffic counts described below, aerial photography, and mapping from Google Earth®.

#### IV. ANALYSIS OF EXISTING CONDITIONS

### A. BACKGROUND

Cordova Road is classified as a minor arterial by the Santa Fe Metropolitan Transportation Organization (MPO). The posted speed limit is 30 miles per hour (MPH). Cordova Road has two travel lanes in each direction, with a center median or two-way left turn lane. The Santa Fe MPO 2011 Annual Average Daily Traffic Volumes map indicates Cordova Road has an average daily traffic volume of 19,360 vehicles per day (vpd). A designated railroad crossing is present on Cordova Road west of the intersection with Pen Road. Cordova Road has sidewalks on both sides of the roadway. The City of Santa Fe Rail Trail Extension plans to construct a marked crosswalk, with median refuge, across Cordova Road between Pen Road and the NM Rail Runner tracks.

Pen Road is an unclassified 2-lane road that runs parallel to the New Mexico Rail Runner train tracks. The posted speed is assumed to be 25 MPH, though no signs are present in GoogleEarth StreetView. Although no sidewalk is present along Pen Road, the previously mentioned City Rail Trail Extension project plans to extend the Rail Trail from Alta Vista Street to north of Pen Road, on the west side of Pen Road between the roadway and the NM Rail Runner tracks. In addition, the City project plans to add a marked crosswalk of Pen Road on Cordova Road. (Sidewalk will also be constructed on the east side of Pen Rd. along the property frontage as part of the project.)

St. Francis Drive is classified as a principal arterial with a posted speed limit of 35 MPH. St. Francis drive has three travel lanes in each direction with a center median or two-way left turn lane. St. Francis Drive has an average daily traffic volume of 42,160 vpd. St. Francis Drive has sidewalks on both sides of the roadway.

Cerrillos Road is classified as a principal arterial with a posted speed limit of 35 miles per hour. Cerrillos Road has two travel lanes in each direction with a center median or two-way left turn lane. Cerrillos Road has an average daily traffic volume of 28,900 vpd. Cerrillos Road has sidewalks on both sides of the roadway.

## 1. MULTI-MODAL CONDITIONS

Capitol Flats will be transit oriented development (TOD) being less than 0.2 miles from the South Capitol Rail Runner station, providing access to rail transit options. Residents also have direct access to bus lines that serve the City of Santa Fe. The development is located within 500 feet of bus stops serving two of Santa Fe Trail's primary routes: Route 2 (Cerrillos

Road), which operates every 15 minutes and can be classified as "high frequency," and Route 4 (Downtown/St Francis Drive) with approximately 20-25 minute headways.

Santa Fe Trails Route 2 provides transit access along Cerrillos Road, diverting onto Cordova Road to serve the South Capitol Station and continuing northbound on St. Francis Drive before returning to Cerrillos Road towards downtown Santa Fe. Weekday service is approximately from 6:00 AM – 10:00 PM, and weekend service is from approximately 8:30 AM – 8:00 PM.

Santa Fe Trails Route 4 provides transit access along St. Francis Drive, diverting onto Cordova Road to serve the South Capitol Station before continuing towards downtown Santa Fe. Weekday service is approximately from 6:00 AM – 10:00 PM, and weekend service is from approximately 8:00 AM – 7:00 PM.

The development is in proximity to walking and bicycle trails, including easy access to the Rail Trail, Acequia Trail, River Trail, as well as adjacent streets with bicycle facilities. Additionally, there is easy access to nearby retail, commercial, and employment sites within walking distance. Pedestrian and bicycle traffic is expected to increase after construction of the Rail Trail Extension project.

See Table 1 below for pedestrian counts.

#### B. EXISTING TRAFFIC CONDITIONS

Traffic counts for the intersection analyzed in the study area were collected Thursday, August 30, 2018, while school was in session. Figure 3 is a summary of the existing peak hour traffic volumes, existing laneage, turning movements, and intersection level of service. Existing traffic counts are included in Appendix A.

The traffic counts included counts for heavy vehicles, pedestrians, and bicyclists. Pedestrian traffic is high in the area, with a total of 155 pedestrians counted at the intersection of Cordova Road and St Francis Drive. See Table 1 below for total bicycle and pedestrian counts at the evaluated intersections.

Table 1 – Bicycle and Pedestrian Counts					
Location	Bicycle	Pedestrian			
Cerrillos Rd and Cordova Rd	17	31			
Pen Rd and Cordova Rd	51	36			
Cordova Rd and St Frances Dr	18	155			
St Francis Dr and Pen Rd	26	56			

# C. EXISTING LEVELS OF SERVICE

The 2010 Highway Capacity Manual (HCM) defines Level of Service (LOS) for unsignalized intersections is as follows:

	Table 2 – LOS Definitions	
Level of Service	Definition	Signalized (sec/veh)
Α	Most vehicles do not stop.	<10
В	Some vehicles stop.	>10 and <20
С	Significant numbers of vehicles stop.	>20 and <35
D	Many vehicles stop.	>35 and <55
Е	Limit of acceptable delay.	>55 and <80
F	Unacceptable delay.	>80

The City of Santa Fe has established LOS D as the generally acceptable level of service in urban areas and when intersections operate below this level, improvements are generally considered, where feasible.

Existing intersection traffic volumes were analyzed using the Synchro version 10 software, that uses the signalized and unsignalized intersection methodology from the Sixth Edition of HCM. Individual intersection output for the existing conditions analysis is included in Appendix B.

The results are summarized in Table 3 and Table 4, and shown graphically in Figure 3.

The analysis indicates that all intersections operate at an acceptable level of service overall in both the AM and PM peak hours.

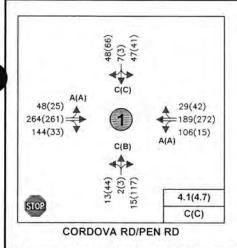
At Cerrillos Road and Cordova Road, the overall intersection operates at an LOS B, with no movements LOS E or F in the AM and PM peak hours. St Francis Drive and Cordova Road operates at an LOS C in the AM and PM peak hour, also with no LOS E or F in the AM and PM peak hours.

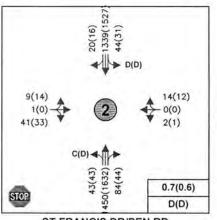
The analysis used the Synchro phase optimization feature, and then modified the timing to allow for acceptable minor street operations while maintaining acceptable LOS on Cerrillos Road and St Francis Drive. This was also done for the No Build and Build scenarios.

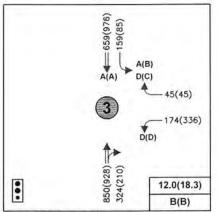
Signalized Intersections	20	018 AM Pea	k	2018 PM Peak			
	Delay (sec.)	Max V/C	LOS	Delay (sec.)	Max V/C	LOS	
Cerrillos Rd and Cordova Rd	12.0	0.84	В	18.3	0.90	В	
St Francis Dr and Cordova Rd	21.0	0.80	С	30.1	0.84	С	

Both unsignalized intersections operate at acceptable levels of service.

		2018	AM Peak	2018 PM Peak				
Intersection/Movement	Delay	v/c	Queue* (ft)	LOS	Delay	v/c	Queue* (ft)	LOS
Cordova Rd and Pen Rd	4.1	1.50	1	С	4.7	100	1 S 1	С
NB Approach	17.3	0.10	25	C	14.2	0.33	50	В
EB Left	7.8	0.04	25	A	8.2	0.03	25	Α
WB Left	8.7	0.11	25	Α	8.1	0.01	0	A
SB Approach	18.7	0.30	50	С	15	0.27	25	C
St Francis Dr and Pen Rd	0.7	61		D	0.6	-		D
NB Left	23	0.18	25	С	27.3	0.21	25	D
SB Left	28.4	0.23	25	D	30.1	0.18	25	D



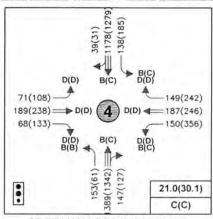




ST FRANCIS DR/PEN RD

CERRILLOS RD/CORDOVA RD





ST FRANCIS DR/CORDOVA RD

Bohannan

# LEGEND

Thru Lanes (# as indicated)

Turning Lanes (# as indicated)

1234(1234) AM(PM) Traffic Counts

X(X) AM(PM) Level of Service (LOS)

Huston

**Capitol Flats** Santa Fe, NM Site Traffic Analysis

Figure #3 2018 AM (PM) Peak Hour **Traffic Volumes** 

# V. PROJECTED TRAFFIC

# A. SITE TRAFFIC FORECASTING

## 1. TRIP GENERATION

Generated trips are broken down into three types; 1) primary, 2) pass-by trips, and 3) diverted link. The Trip Generation report defines these trips as follows:

- Primary Trips These trips are made for the specific purpose of visiting the generator. The stop at that generator is the primary reason for the trip. For example, a home to shopping to home combination of trips is a primary trip set.
- Pass-by Trips These trips are made as intermediate stops on the way from
  an origin to a primary trip generation. Pass-by trips are attracted from the traffic
  passing the site on an adjacent street that contains direct access to the
  generator site. These trips do not require a diversion from another roadway.
   For example, stopping at the store on the way home from work is an example
  of a pass-by trip. No pass-by trips were assigned to this development.
- Diverted Linked Trips These trips are attracted from the traffic volume on the roadway within the vicinity of the generator, but which require a diversion from that roadway to another roadway to gain access to the site. The roadways could include streets or freeways adjacent to the generator, but without access to the generator. For this study, the diverted link trips have been included in with the primary trips.

All trips to the site were considered primary trips.

The Institute of Transportation Engineers Trip Generation Manual, 9th Edition was used to estimate the trips generated by the site.

		Table 5 – Trip Generati	on				
Land Use	Size	ITE Land Use Type Assumed	Daily	AM Enter	AM Exit	PM Enter	PM Exit
Residential	139	220 - Multifamily (Low-Rise)	1,010	22	56	55	38
Trip Generatio	n		1,010	22	56	55	38

# 2. TRIP DISTRIBUTION AND ASSIGNMENT

A modified gravity model was used to develop the trip distribution. This modified gravity model utilized the Santa Fe MPO employment estimates for each zone within the Santa Fe Metropolitan Planning Area to develop the trip distribution. The spreadsheet used to create the modified gravity model is included in Appendix C.

Spreadsheets showing the development of the trips at each intersection for the build scenario are also included in Appendix C. The trip distribution percentages and assigned traffic volumes for the Build analysis is shown in Figure 4 and Figure 5.

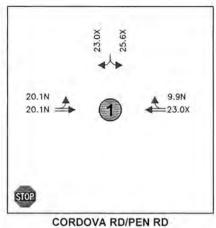
Due to the regional nature of the adjacent arterials St Francis Drive and Cerrillos Road, the vast majority of trips are expected to travel either north or south on these roadways. The trip distribution percentages resulted in approximately 42% of the trips using St Francis Drive and 46% of the trips using Cerrillos Road.

The analysis assumed the majority of trips will enter or exit the development via Cordova Road. The Pen Road access on St Francis Drive will likely be used for trips entering the development on Pen Road traveling southbound on St Francis Drive. The majority of the exiting traffic of the development will utilize Cordova Road to access Cerrillos Road or St Francis Drive.

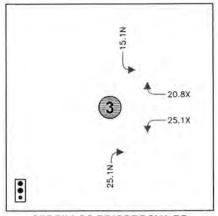
# 2020 No Build Traffic Projections

A review of the NMDOT Permanent Count Stations near the project site found a flat growth rate. In order to estimate some traffic growth a 1.0% annual growth was applied to the existing turning movements to provide a small estimate of potential future growth of traffic on the existing street. Figure 6 on page 17 shows the 2020 No Build traffic volumes, number of lanes, and level of service.

The No Build analysis assumes that the proposed project is not completed.



3.0X -STOP



ST FRANCIS DR/PEN RD

CERRILLOS RD/CORDOVA RD



**LEGEND** 

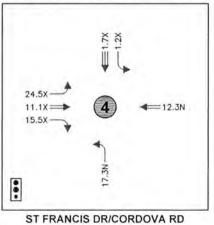
Thru Lanes (# as indicated)

Turning Lanes (# as indicated)

1234(1234) **Trip Assignment** Percentages

Entering

Exiting



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20.1N 19.7N STOP CORDOVA RD/SOUTH ACCESS

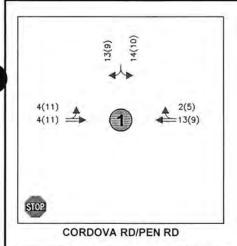
3.0X 48.5X STOP

PEN RD/WEST ACCESS

Bohannan L Huston

**Capitol Flats** Santa Fe, NM Site Traffic Analysis

Figure #4 **Build Trip Distribution Assignment** Percentages



STOP ST FRANCIS DR/PEN RD

12(8) 14(10) •

CERRILLOS RD/CORDOVA RD

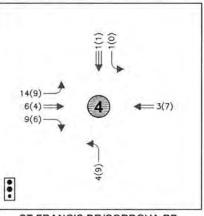


# **LEGEND**

Thru Lanes (# as indicated)

Turning Lanes (# as indicated)

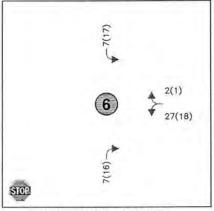
AM(PM) Traffic 1234(1234) Counts



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4(11) 14(10) SIOP CORDOVA RD/SOUTH ACCESS



ST FRANCIS DR/CORDOVA RD

PEN RD/WEST ACCESS

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Capitol Flats Santa Fe, NM Site Traffic Analysis

Figure #5 **Build Trip Distribution Assignment** Volumes

# VI. TRAFFIC AND IMPROVEMENT ANALYSIS

The following section will discuss the results of the future year traffic analysis.

# A. LEVEL OF SERVICE ANALYSIS

# 1. 2020 No Build Intersection Capacity Analysis

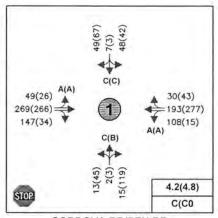
For the 2020 No Build scenario, the intersections were again analyzed using Synchro. Table 6 and Table 7 shows the 2020 No Build signalized and unsignalized intersection analysis results. The results are shown graphically in Figure 6. Synchro output is included in Appendix D.

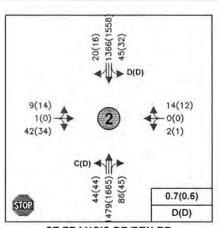
The analysis indicates that all intersections will continue to operate at an overall acceptable level of service in the 2020 No Build scenario, with no movements LOS E or F.

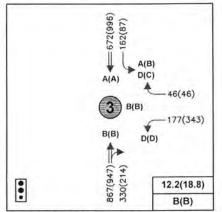
Signalized Intersections	2020 N	No Build AN	Peak	2020 No Build PM Peak				
	Delay (sec.)	Max V/C	Los	Delay (sec.)	Max V/C	LOS		
Cerrillos Rd and Cordova Rd	12.2	0.85	В	18.8	0.91	В		
St Francis Dr and Cordova Rd	21.4	0.67	С	32.1	0.85	С		

The unsignalized intersections also continue to operate at acceptable levels of service.

	2020	No B	uild AM Pe	2020 No Build PM Peak				
Intersection/Movement	Delay	v/c	Queue* (ft)	LOS	Delay	v/c	Queue* (ft)	LOS
Cordova Rd and Pen Rd	4.2		27	С	4.8	J-7		С
NB Approach	17.7	0.11	25	C	14.5	0.5	50	В
EB Left	7.9	0.04	25	Α	8.2	0.03	25	Α
WB Left	8.7	0.11	25	Α	8.1	0.02	0	Α
SB Approach	19.2	0.32	50	C	15.4	0.28	25	C
St Francis Dr and Pen Rd	0.7	DAV.		D	0.6	E A		7.2
NB Left	23.7	0.19	25	С	28.6	0.23	25	D
SB Left	29.7	0.24	25	D	31.5	0.19	25	D







CORDOVA RD/PEN RD

ST FRANCIS DR/PEN RD

CERRILLOS RD/CORDOVA RD



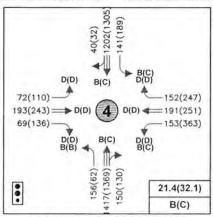
# LEGEND

Thru Lanes (# as indicated)

Turning Lanes (# as indicated)

1234(1234) AM(PM) Traffic Counts

X(X) AM(PM) Level of Service (LOS)



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ST FRANCIS DR/CORDOVA RD

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Capitol Flats Santa Fe, NM Site Traffic Analysis Figure #6 2020 No Build AM (PM) Peak Hour Traffic Volumes

# 2. 2020 BUILD TRAFFIC VOLUMES

The trips generated by the site (Table 5) were assigned to the intersections using the trip percentages and volumes assigned at each intersection shown in Figure 4 and Figure 5. These trips were added to the 2020 No Build traffic projections in Figure 6.

Figure 7 is a summary of the 2020 Build Peak hour traffic projections, lane geometry, and movement and intersection level of service for the 2020 Build analysis. Individual intersection output is included in Appendix E. Table 8 and Table 9 show the 2020 Build signalized and unsignalized intersection analysis results.

The analysis indicates that all intersections will continue to operate at an overall acceptable level of service in the 2020 Build scenario with the addition of driveways at Cordova Road and Pen Road, with no movements LOS E or F.

Signalized Intersections	2020	Build AM F	Peak	2020 Build PM Peak				
	Delay (sec.)	Max V/C	LOS	Delay (sec.)	Max V/C	LOS		
Cerrillos Rd and Cordova Rd	12.7	0.82	В	19.4	0.91	В		
St Francis Dr and Cordova Rd	21.4	0.78	С	36.7	0.87	D		

The unsignalized intersections of Pen Road and St. Francis, and Pen Road and Cordova Road, operate at acceptable levels of service in the build condition.

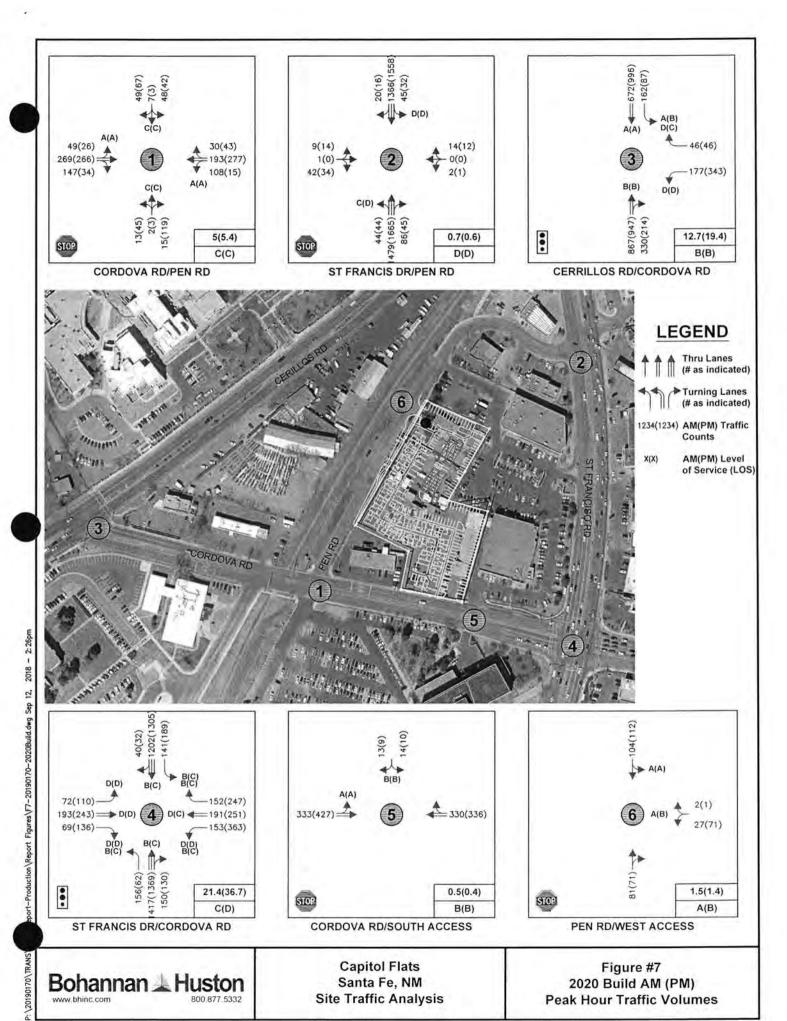
Access to the development at Cordova Road from the south and Pen Road from the west will operate at LOS A or B for all movements with minimal delays.

	2020 Build AM Peak				2020 Build PM Peak				
Intersection/Movement	Delay	v/c	Queue* (ft)	Los	Delay	v/c	Queue* (ft)	LOS	
Cordova Rd and Pen Rd	5		1.13210.	С	5.4	1. O.	1	C	
NB Approach	18.5	0.11	25	C	15.4	0.37	50	C	
EB Left	7.9	0.05	25	A	8.3	0.04	25	A	
WB Left	8.7	0.11	25	A	8.1	0.02	0	A	
SB Approach	22.1	0.41	50	С	17.6	0.35	25	C	
St Francis Dr and Pen Rd NB Left SB Left	0.7		1.00		0.6	100		- 3	
	23.9	0.19	25	С	29.2	0.23	25	D	
	30.2	0.25	25	D	31.9	0.20	25	D	
Cordova Rd and South Access	0.5	- 81	17.5	В	0.4	r Faul	-	В	
EB Left	8.1	0.01	0	A	8.2	0.01	0	Α	
SB Approach	10.9	0.05	25	В	11.4	0.04	25	В	
Pen Rd and West Access	1.5	- 2	100	Α	1.4	n 5.0	3.0	В	
WB Approach	9.9	0.04	25	A	10.2	0.03	25	В	
SB Left	7.4	0.01	0	Α	7.5	0.01	0	A	

# 3. TURN LANES

The City project to extend the Rail Trail adds a pedestrian refuge on Cordova in the existing two-way center left turn lane, resulting in no eastbound left turn lane onto Pen Road. This will likely discourage some entering left turns from entering at Pen Road. A supplemental analysis was performed that assumed no site entering left turns onto Pen Road and assumed all eastbound entering left turns would enter at the Cordova site driveway. The Cordova driveway would still operate at acceptable level of service under this scenario. This supplemental analysis is included in Appendix E. A two-way center left turn lane exists in Cordova Road at the proposed entrance, so no left turn lane is required to be constructed.

The forecast entering right turn at the proposed Cordova Road driveway does not satisfy NMDOT State Access Management Manual (SAMM) criteria for addition of a right turn lane. The highest entering right turn volume is the PM forecast of 11 vehicles. Per the SAMM, for multi-lane urban roadways with 11 right turns (SAMM Table 17.B-2, page 74), the minimum volume in the adjacent through lane for a 30-MPH roadway is 776 vehicles per hour, and the future volume on Cordova is expected to be 341 vehicles in the PM peak hour. Therefore, the SAMM right turn lane criteria is not satisfied, and a right turn lane is not required.



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Capitol Flats Santa Fe, NM Site Traffic Analysis

Figure #7 2020 Build AM (PM) **Peak Hour Traffic Volumes** 

## VII. CONCLUSIONS AND RECOMMENDATIONS

## A. CONCLUSIONS

The traffic analysis shows that under existing 2018, 2020 No Build, and 2020 Build, all intersections will operate at an acceptable level of service (LOS). Construction of the Capitol Flats development will not result in dramatic increases in traffic delay or degrade in LOS.

The forecast entering right turn at the proposed Cordova Road driveway does not satisfy NMDOT State Access Management Manual (SAMM) criteria for addition of a right turn lane. The highest entering right turn volume is forecast to be 11 vehicles. Per the SAMM, for multi-lane urban roadways with 11 right turns (SAMM Table 17.B-2, page 74), the minimum volume in the adjacent through lane for a 30-MPH roadway is 776 vehicles per hour, and the future volume on Cordova is expected to be 341 vehicles in the PM peak hour. Therefore, the SAMM right turn lane criteria is not satisfied, and a right turn lane is not required.

# B. RECOMMENDATIONS

The development does not have a significant impact on traffic operations, and no improvements are necessary at the intersections.

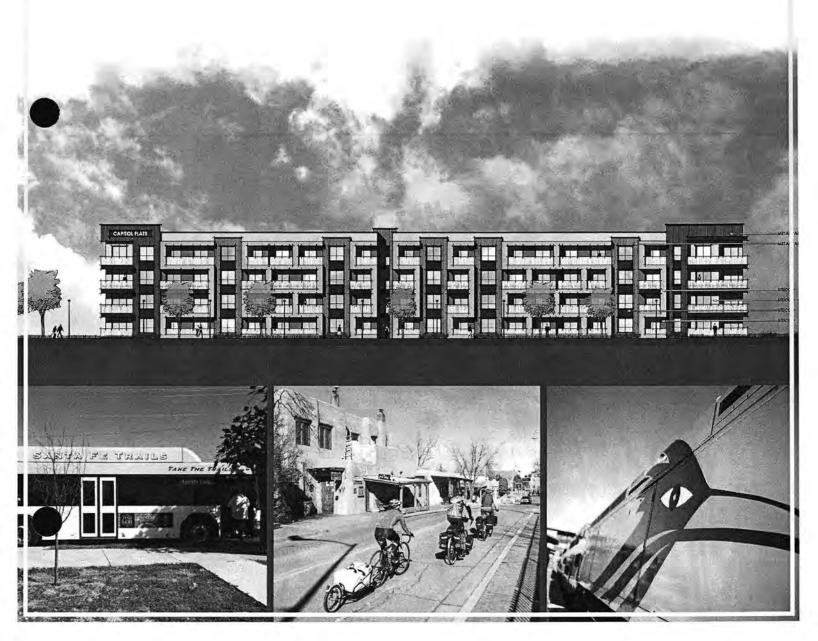
# Bohannan A Huston



# CAPITOL FLATS

# PARKING DEMAND STUDY

SEPTEMBER 2018



# Capitol Flats Multifamily Development Parking Demand Study September 2018

Prepared for:

City of Santa Fe

Prepared by:

Bohannan Huston, Inc.

7500 Jefferson St NE

Albuquerque, NM 87109



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# Capitol Flats Multifamily Development Parking Demand Study

# Introduction

Capitol Flats is a proposed 139-unit apartment complex located on 2.34 acres between Pen Rd and Cordova Rd in the South Capitol area of Santa Fe, NM. Though the site is currently zoned as a C2 Commercial District, its proximity to transit and employment make it an ideal location for multifamily housing similar to those found within the City of Santa Fe's Business Capitol District. The apartments are currently designed with 165 parking spaces (1.19 spaces/unit), which diverges from the Santa Fe City Code average requirement of 1.30 spaces/unit (and 182 spaces for the proposed Capitol Flats).

The level of parking demand at a site is influenced by its location, types of users, and the transportation options available nearby. The purpose of this study is to consider the factors that influence parking demand and their applicability to the site, as well as the appropriateness of developing the Capitol Flats site with 17 fewer parking spaces than typically required by the City Code. The study also considers the extent to which the proposed development exemplifies the types of infill, transit-oriented development, and housing projects that have been expressly stated among of the City of Santa Fe's overall goals for future development.

# Transportation Accessibility for Capitol Flats

A principal influencing factor in the parking demand for residents of Capitol Flats is the development's proximity to commuter rail and bus transit. The project site is less than 0.2 miles, or a 3-4 minute walk, from the South Capitol Rail Runner Station. This provides access to rail transit that is nearly unparalleled within Santa Fe.

Additionally, residents of Capitol Flats will have direct access to bus lines that service the rest of the city. The project is located within 500 feet of stops serving two of Santa Fe Trail's primary routes: Route 2 (Cerrillos), which operates every 15 minutes and can be classified as "high frequency," and Route 4 (Downtown-St. Francis). A range of other routes serve the South Capitol Rail Runner Station and align with the schedule of the Rail Runner. This level of transit access, coupled with the high concentration of bike lanes and multi-use trails in the area, will reduce the need for private vehicle travel in Santa Fe, while still maintaining the ability to commute to Albuquerque, Bernalillo, Los Lunas, or Belen via the Rail Runner.

In addition to the proposed project's easy access to transit, Capitol Flats will allow residents to easily access nearby destinations through alternative modes of transportation. According to the website WalkScore.com, which measures the walkability of a given area, Santa Fe maintains an average walkscore of 40, which qualifies it as a "car-dependent" city where most errands require a car. In contrast, the Capitol Flats site has a walkscore of 77, or "Very Walkable," meaning most errands can be accomplished on foot (WalkScore, 2018). This higher walkscore is in part due to the site's proximity to nearby pedestrian and bike facilities, including easy access to the Rail Trail (which is slated to be improved and extended near-term through the City of Santa Fe

Capital Improvement Program). An at-grade crossing for the Rail Trail along Cordova Rd will provide direct benefits to Capitol Flats residents. Other nearby facilities include the Acequia Trail, River Trail, as well as adjacent city streets with bike improvements.

Besides these connections to alternative forms of mobility, Capitol Flats also offers easy access to retail, commercial, and employment sites within walking-distance from the site. According to data from the US Census Bureau's OnTheMap data analysis tool, 4,560 jobs are within a 10-minute walking distance of the site, and a total of 8,397 jobs are within a 20-minute walk of the site (OnTheMap, 2018). As commuting is one of the primary factors for car ownership, providing housing near jobs allows residents the ability to live near employment and to commute to work without the need of a car.

# Policies Supporting Transit-Oriented Development and Reduced Parking Demand

In recent years, the City of Santa Fe has passed a number of policies that support transitoriented development (TOD) as a means to increase transit usage while simultaneously
reducing the demand for parking. The City's Santa Fe MPO Metropolitan Transportation Plan
2015-2040, City of Santa Fe Land Use & Urban Design Plan, and Rail Corridor Study Transit Oriented Development for Santa Fe's Rail Corridor Neighborhoods all directly call
for reducing the vehicle dependency of citizens by bringing residents closer to their destinations,
providing connections to transit, encouraging infill development near transit stations, and
reducing the supply of parking in favor of pedestrian improvements. For example, the Land Use
& Urban Design Plan specifically calls for "land use policies that reduce the need for
automobile travel by providing greater residential and commercial densities in newly developing
areas" (City of Santa Fe Long Range Planning Division, p. 23).

TOD is defined by the Federal Transit Administration (FTA) as "a mix of commercial, residential, office and entertainment centered around or located near a transit station." FTA contends that "(d)ense, walkable, mixed-use development near transit attracts people and adds to vibrant, connected communities" (FTA, 2018). The Capitol Flats development encapsulates the TOD methods described by the FTA and called for in the City's development plans. In fact, the project is located in an area that has been identified by the City as a prime candidate for TOD. According to the *Santa Fe MPO Metropolitan Transportation Plan 2015-2040*, "specific areas are targeted, such as concentrated employment centers, including sites where transit service is available and/or parking is costly or inconvenient, like the South Capital Station neighborhoods; city, county, and state government campuses; and local college and university campuses" (Santa Fe Metropolitan Planning Organization, 2015, p. 5-2).

Within Santa Fe, the Rail Runner stations can act as hubs for TOD and projects such as Capitol Flats. In fact, TOD was a major consideration when planning for the Rail Runner stations within the city. According to the City's *Rail Corridor Study - Transit Oriented Development for Santa Fe's Rail Corridor Neighborhoods*, "because transit stops are hubs of activity involving different modes of travel, they are also excellent locations to allow for a mix of land uses to serve riders getting on and off the bus or train. For regular commuters, housing immediately

adjacent to a transit stop can create the ability to walk or ride a bike to the stop without needing a car" (City of Santa Fe Long Range Planning Division, 2008, p. 3).

Reduced parking supply, or parking demand management, is a common characteristic of TOD and is among the development strategies identified in the aforementioned *Rail Corridor Study*. Specifically, the plan calls for reducing the "minimum parking requirements for TOD and other new development and infill/redevelopment projects near station areas" (City of Santa Fe Long Range Planning Division, 2008, p. 33). Reducing the supply of parking spaces within a given area can encourage the use of transit and alternative forms of transportation, while simultaneously reducing single-occupancy vehicle travel.

Other plans and studies created by the City of Santa Fe also identify parking demand management as a key goal for development within the city moving forward. According to the *City of Santa Fe Land Use & Urban Design Plan*, "One of the biggest contributors to sprawl and poor land management can be found in the amount of land devoted to massive parking lots that are rarely, if ever, full." The Plan further contends that the City should review and amend its parking requirements in the Land Development Code" (City of Santa Fe Long Range Planning Division, p. 17).

# Reduced Parking Demand through Transit-Oriented Development

This overabundance of parking is not unique to Santa Fe, and a number of studies indicate that parking requirements in general are higher than they need to be for multifamily developments. In a study which looked at TOD developments in five major cities, occupancy of residential parking spaces (i.e. peak demand divided by actual supply) ranged from 54.3% at the lowest observed utilization, to 80.6% at the highest observed utilization (Ewing et al., 2017, p.108). Another study examined over 50 multifamily housing developments in Madison, Wisconsin and found that an average of "30 percent of the parking spaces are vacant during peak demand hours" (Handel, 2016. Executive Summary).

Access to rail transit has been observed to be one of the strongest factors in reducing the demand for parking at TOD projects like Capitol Flats. According to the Victoria Transport Policy Institute, parking supplies can be reduced "20-50% within ¼-mile of a rail transit station" (VTPI, 2018, p. 25). These findings are further supported by the City of Palo Alto's study into multifamily residential parking requirements, which found that if a multifamily development were located within "½-mile of a Caltrain station, the parking supply needs could be reduced by up to 25%" (City of Palo Alto, 2018, p.10). Access to bus lines is another key factor which has been shown to reduce parking demand, with observed reductions of "10% within ¼ mile of frequent bus service," according to the Victoria Transport Policy Institute (VTPI, 2018, p. 25).

The above findings have implications for Capitol Flats, which offers immediate access to both commuter rail and bus transit. If a modest 10% reduction were applied to the required total number of parking spaces, which could be considered an appropriate reduction for high frequency bus transit only, the site could qualify for a reduction of 18 parking spaces. That level of reduction would bring the parking supply at Capitol Flats above the required number of spaces.

# Demographics and Vehicle Ownership Rates

The profile of expected tenants is an important consideration in parking generation, as young adults demonstrate lower licensure and vehicle ownership rates than other generations. Overall vehicle ownership rates have fallen by 4.4% from peak levels in the 2000s (Sivak, 2017), though decreased rates of vehicle use are most acute among young adults. Nationwide vehicle licensure rates among individuals age 16-44 has dropped from 92% in 1983 to 77% in 2014 (Sivake and Schoettle, 2016).

Lower vehicle use rates are part of a trend among young adult and zero-children households for more walkable, urban housing options (Urban Land Institute, 2015). These trends are not just evident in national research; similar findings in terms of housing preferences and travel behavior were documented in the Albuquerque metropolitan area in a document called "Taking the Wheel" (Urban Land Institute-New Mexico and the Mid-Region Council of Governments, 2016).

Railyard Flats, located less than a mile from the Capitol Flats site, offers a useful comparison based on expected tenants and site characteristics. Despite the different zoning districts, the Capitol Flats site bears many similarities in terms of proximity to employment and both the Rail Runner and Santa Fe Trails transit system. Railyard Flats is located within the Business Capitol District (BCD), and per the Santa Fe city code, is only required to provide one parking space per unit. This reduced parking demand rate is possible because of the TOD-related benefits and the profile of its tenants: per the latest tenant leasing information, 46% of residents at the Railyard Flats are age 41 or younger. Capitol Flats is expected to attract tenants with a similar profile.

# Housing and Affordability

Among the issues faced by the City of Santa Fe in recent years is a shortage of housing, as well as a corresponding rise in rental prices. According to CBRE Group, a commercial real estate group that monitors Santa Fe's multifamily housing market, the city's occupancy rate has been at "95 percent or above since May 2014" (Grubbs, 2018). According to the 2016 **Santa Fe Affordable Housing Plan**, median rent increased from \$767 to \$872 between 2010 and 2014, while homeownership declined from 61 percent to 59 percent. The combination of declining homeownership rates and increasing rents reflects the need for additional multifamily housing, such as Capitol Flats, in Santa Fe.

This increase in rental prices throughout Santa Fe disproportionately affects young families and professionals who are more likely to rent rather than own a home. As of 2015, homeownership rates among Millennials (ages 18-34) was only 32%, compared to 60% for Gen Xers (ages 35-50) and 75% for Baby Boomers (ages 51-69) (Urban Institute, 2018). Capitol Flats seeks to fill this need and provide additional housing for a city that struggles to attract and retain young adults.

This limited stock of and increasing demand for available rental housing naturally leads to an increase in price, which raises the percentage of residents' income needed for housing costs. One means of addressing cost of living in Santa Fe is to reduce combined housing and transportation costs through decreased dependency on cars. According to the Center for

Neighborhood Technology's Housing + Transportation Affordability Index, the average combined housing and transportation costs in Santa Fe equal 50% of median household income (anything over 45% is considered a financial burden). TOD projects like Capitol Flats, with its easy access to transit and trails, offer residents the ability to live in Santa Fe either without the need for a car or for households to function without multiple vehicles. Reduced transportation costs would then allow for more of residents' income to be used elsewhere. (According to AAA, the annual cost of owning a car as of 2017 is approximately \$8,500, or \$706 per month.) Capitol Flats will also increase the overall supply of multifamily housing in Santa Fe, which should contribute to lower rental costs. Regardless of the effects on the overall housing market, Santa Fe remains in need of additional housing supply, and the Capitol Flats development will help address this need.

# Off-Site Public Parking

It is important to note that the urban context of the Capitol Flats location ensures alternatives to on-site parking. In addition to the on-site parking provided by Capitol Flats, the development will construct four on-street spaces along Pen Rd. The City of Santa Fe has also proposed the addition of 11 non-metered, public, parallel parking spaces on the west side of Pen Rd. With no logical competing users, residents and visitors of Capitol Flats will be able to easily utilize these 15 additional proposed parking spaces.

# Conclusion

The Capitol Flats development is currently designed with 165 parking spaces, a difference of 17 spaces from the amount required by city code (i.e., 182 spaces). However, the development supports many of the City's stated policies regarding infill and additional housing near transit, and the characteristics of its location decrease the need for parking at the rate required for typical multifamily developments. In particular, Capitol Flats' easy access to the Rail Runner and Santa Fe Trails bus routes, bike facilities, and employment areas provide increased opportunities to travel without a private vehicle. The development should prove particularly attractive to tenants who prefer a more urban lifestyle and own vehicles at lower rates. If a reduction of 10-15% of the total parking supply were applied to Capitol Flats – a number at the low end of studies showing the parking reduction benefits from TOD sites –18 to 27 spaces would be removed from the site's design, bringing the site in line with the level of parking proposed for the development. Such a reduction would also result in a parking supply for the site that exceeds the nearby Railyard Flats.

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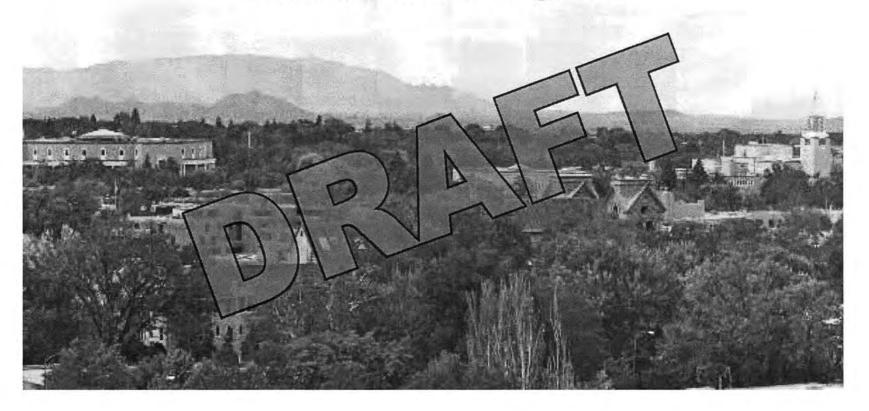
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**Appendices** 

Appendix A: Local Policy

# City of Santa Fe

Land Use & Urban Design Plan



# Land Use & Growth Management

#### Growth Management

The City of Santa Fe has implemented the following major growth management techniques since 2000:

Annexation/Clear Boundaries - The city has nearly completed an ambitious three-phase annexation program that has set the city corporate limits at the highways to the south and west (I-25 and NM 599, respectively). These new city limits clearly define areas of jurisdictional responsibilities between the city and county, while allowing for growth of the city within a well-defined geographic boundary.

Water Offset Program - The city's continuing efforts in water conservation have become nationally-recognized. The city uses a dual-track approach:

- Water Conservation at home, work and school through progressively-scaled rate pricing, rebates on replacement of older more water-wasteful household fixtures, and community advertising and education.
- Transfer of Water Rights New residential and commercial development must offset the anticipated water to be used through conservation, or transfer enough water rights to serve the entire development at build-out.

This has proven to be an effective and comprehensive approach to growth management. During the past 20 years, the city's overall annual water consumption decreased nearly 25%, while the population increased 15%.

#### The following growth management strategies should be added to the city's current program:

- Urban Design Well-designed development uses less land by creating smaller residential lots and using more multi-family housing, thereby making more efficient use of land and city utilities. Good urban design also aids growth management by requiring commercial development to build closer to front property lines, creating more walkable, pedestrian-friendly environments and, in the process, using less land for excessive off-street parking requirements. One of the biggest contributors to sprawl and poor land management can be found in the amount of land devoted to massive parking lots that are rarely, if ever, full. The city should review and amend its parking requirements in the Land Development Code (Chapter 14). Traditional suburban road design can also absorb much more land than is needed to create a truly effective, efficient street system. At this point in Santa Fe's development history, very few, if any, new roadways require more than 50-60 feet of Right-of-Way.
- Land Use/Streets/Public Parks & Plazas Linkage A fundamental aspect of effective growth management is fully integrating the following: (see the Urban Design chapter)
  - Smaller neighborhood-scale blocks; commercial buildings near the street.
  - Frequently intersecting street network,
  - Centrally located public parks & plazas

These three aspects of city life, when fully integrated, create the most desirable parts of the city and also create the healthiest sections of a city, fiscally. Examples of this integration are often best reflected in older neighborhoods.

Re-Use / Re-Development along Major Streets - The City should encourage and provide incentives for the re-purposing re-use of older strip commercial development along major arterials like Cerrillos Road and St. Michael's Drive. Eliminating administrative costs and barriers to this type of re-development helps counterbalance the constant push toward more commercial development on the edges of the city. Impact Fees – The city first began charging limited impact fees as early as 1993, and developed a full impact fee program collecting fees for roads, parks trails, police and fire in 2004. These fees help fund road, park, trail, police and fire capital projects required by the new growth. Between 2004 and 2014, \$14.0 million was collected for numerous capital projects. The city waives impact fees for new affordable housing.

#### Santa Fe's Aging Population

Nearly one-quarter of Santa Fe's population will be age 65 or older by 2020 and this senior population will continue to increase regardless of the rate of the city's overall population growth. Santa Fe's median age may reach 50 by 2020, considerably older than the city has been during past decades. An aging population has implications for land use and urban design considerations, such as:

#### Streets

- . Sidewalk Maintenance Ensuring that sidewalks are in good repair is essential.
- to encouraging seniors to stay active by walking outdoors, in and around their neighborhood:
   Especially important on north and east sides of town
- Crosswalks Ensure that crosswalk striping is well-maintained where a predominance of seniors reside and visit;
- Traffic Signal/Crosswalk Timing Additional seconds put onto crosswalk signals and traffic signal cycle length can be critical to allowing seniors the necessary time to safely cross a street:

#### **Public Transportation**

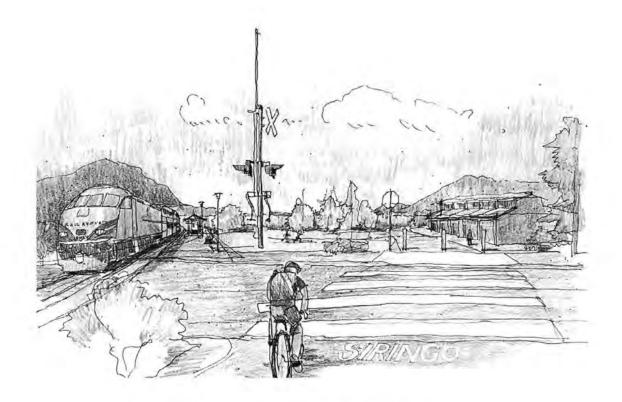
 Santa Fe Trails & City Senior Services – Increased planning and coordination between Santa Fe Trails and the senior services division's scheduled and "Call-on-Demand" van service will be important to serve a growing and older senior population in the future.

#### Homes and Permits

- Affordable Housing Regardless of age, affordable housing is fundamental to every individual's sense of security and well-being. Santa Fe's affordable housing program may become increasingly important to the city's senior population.
- House-to-Duplex (Age-in-Place with Extended Family) The city should reduce as many regulatory barriers and fees as possible to allow seniors, their families or their friends to add a guesthouse or divide a home into two units in order to house family members under the same roof or on the same property.

# **Rail Corridor Study**

Transit Oriented Development for Santa Fe's Rail Corridor Neighborhoods



City of Santa Fe Long Range Planning Division

AOS Architects and Charlier and Associates

REVISED DRAFT, December 8, 2008

#### TRANSIT ORIENTED DEVELOPMENT

"Transit-Oriented Development" (TOD) is a term used to capture the main ideas surrounding the development or redevelopment of urban land adjacent to rail and other transit stops, TOD is a coordinated set of strategies that are in use in cities served by commuter rail throughout the country. These strategies can be implemented in diverse ways to enhance existing neighborhoods and create new neighborhood centers.

Because transit stops are hubs of activity involving different modes of travel, they are also excellent locations to allow for a mix of land uses to serve riders getting on and off the bus or train. For regular commuters, housing immediately adjacent to a transit stop can create the ability to walk or ride a bike to the stop without needing a car. Businesses are interested in locating where activity is generated by a point of public gathering such as a train stop. Finally, transit oriented development allows a more efficient use of land that makes use of already existent utilities and other infrastructure.

When rail service was first established in Santa Fe in 1880, it brought rapid evolution to the culture and economy of the city, and created the Railyard and adjoining neighborhoods. The bustle, vitality and economic innovations of the Railyard in its heyday mark it as an ancestor of today's Transit Oriented Developments, or TODs. The arrival of the Rail Runner commuter rail service in December 2008 will bring similar changes to the culture and urban fabric of the city. A series of workshops held in Spring 2008 explored the opportunities and challenges of renewed rail service for the neighborhoods in the rail line corridor.

Anticipation for the Rail Runner was expressed by nearly all of the participants in the workshop series. They also expressed concerns about how neighborhoods might change with such ready access to commuter transportation. Residents participated in the workshops to ensure that the 'how' and 'where' of the city's response to the Rail Runner would serve the interests of the whole community.

# DESIGN PRINCIPLES FOR SANTA FE'S RAIL CORRIDOR

- Land Use Mix Successful rail stops have a mix of active uses including residential, office and retail in close
  proximity to each other, with higher densities near the center and good transitions to adjacent land uses.
- Transit Connections City buses must connect seamlessly with commuter rail service, making it accessible to as many Santa Feans as possible.
- Complete Streets "Complete Streets" are essential to healthy neighborhoods and TODs -- streets that balance the needs of pedestrians, bicyclists, transit riders, and drivers.
- 4. Trail Connections Inviting, safe, and accessible pedestrian and bike trails can provide necessary alternative routes to get to and from transit stops and commercial areas. Santa Fe's arroyos naturally link neighborhoods to these existing and planned hubs.
- Parks, Plazas & Public Places Public space can make rail stops into community gathering places and improve health and public safety.
- Neighborhood Protection & Enhancement Successful TODs create amenities for nearby neighborhoods while minimizing or mitigating any traffic or parking impacts.

mar September

- Allow market growth but protect low-income residential in the area from rising property values through policy.
- Guide development to support the small, local, varied, and active nature of Second Street.
- .5 Guide the redevelopment of the County Yards as a potential mixed use development.

#### 6.0 Street Network and Design See Street Network & Design in Map Section.

#### 6.1 Improve pedestrian safety.

- 6.1.1 Improve pedestrian routes in the rail corridor neighborhoods with striped crossing, sidewalks, ramps.
- 6.1.2 Traffic Calming:
  - -Work with neighbors to develop traffic calming plans for streets in neighborhoods adjacent to station areas. There are several opportunities in each proposed station location for neighborhood entrances and mid-block choke points. See Fig 6.1 and See Street Network & Design map for specific locations.

#### 6.2 Create pedestrian supportive environments. See Appendices B-4 & B-5.

- 6.2.1 New Street Connections: See Street Network & Design Map for specific locations.
  - .1 Consider the following long term solutions to reduce congestion and increase connectivity:
  - Acquire land for a right-of-way connecting Galisteo Street to Sawmill Road, north of Premier Distributing.
  - Create a neighborhood plan and work with school system to open a street connection through the Vo-Tech property from Zia to Siringo.
  - Create a neighborhood plan and develop a street connection from Candelero to the northern redevelopment parcel.
  - .2 Connect Galisteo Street to West Rodeo Park Drive.

#### 6.2.2 Complete Streets Policy:

- .1 Establish a Complete Streets Policy city wide with prioritized goals and an implementation timeline.
- .1 "Complete the streets" with sidewalk and cycling improvements. See Fig. 6.2.
- Repair and/or connect existing sidewalks to create a better pedestrian environment.
- Work to improve & extend existing bicycle lanes and signage.
- Establish locations for bike parking or storage.
- Add shade trees along sidewalks and medians.

#### 6.2.3 Implement parking demand reduction strategies See Fig. 6.3.

- Implement a residential/neighborhood parking permit program in residential areas adjacent to TOD areas to prevent spillover parking.
- Establish a parking district to manage and sell parking permits. Carefully
  consider the boundaries of the parking district because if it is too small,
  people may park just outside the boundaries to avoid purchasing a
  permit.
- .2 Reduce minimum parking requirements for TOD and other new development and infill/redevelopment projects near station areas.
- .3 Use shared parking strategies to reduce surface parking area requirements at TOD areas.
  - Walking distances are a critical consideration in shared parking strategies.
- Use zoned rather than assigned spaces.
- Allow uses with different peaks (i.e. night uses versus day uses) to share

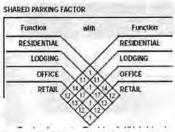
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Fig. 6.1



Fig. 6.2



#### To Use the Shared Parking Factor:

If the Residential component of a development requires 80 parking spaces and the Retall component requires 220 spaces, the total combined parking requirement is 300 spaces. If these two uses share parking, it is appropriate to provide a shared lot with 250 spaces (or 300 divided by 1.2, per Figure X below). In this example, using shared parking allows just under a 17 percent reduction intotal parking supply needed compared to a traditional parking supply scheme.

Fig. 6.3

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# Santa Fe MPO Metropolitan Transportation Plan 2015-2040

A D O P T E D
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# Transportation Demand Management

Each year, the region spends millions of dollars on the supply side of mobility; that is, building and maintaining roads, buying and operating buses, and building sidewalks and bicycle facilities. Some of the most cost-effective mobility investments we can make are on the demand side, including:

- Encouraging commuters to use our transportation facilities as efficiently as possible by walking, bicycling, taking transit, carpooling, or vanpooling; and
- Encouraging commuters to shift autotrips out of peak periods.

Strategic marketing and outreach efforts targeted to shifting commuter behavior by connecting with commuters and the employers they work for are called Transportation Demand Management (TDM) strategies.

To successfully implement TDM strategies, specific areas are targeted, such as concentrated employment centers, including sites where transit service is available and/or parking is costly or inconvenient, like the South Capital Station neighborhoods; city, county, and state government campuses; and local college and university campuses.

Recommended TDM strategies include:

- Developing a comprehensive Metropolitan Mobility Plan that details TDM strategies and supports the implementation of each Metropolitan Master Plan.
- Identifying potential aggregated funding opportunities, including state, federal, and local funding.
- Working with targeted employers on multiple strategies they may execute on behalf of their workforce.
- Looking critically at the parking supply.
   When free or inexpensive parking is offered, it leads to overuse. Parking management is integral to any TDM program.

- Using the best technologies and promotional tactics to improve and distribute transit and any regional rideshare information. Developing and marketing web-based and mobile phone based applications for transit riders is an example of TDM at work.
- Outlining the costs and benefits of universal transit passes for businesses, educational institutions, and governmental institutions.
- Using social marketing and incentive programs to reach out to the general public and visitors.

TDM strategies can be a crucial component of the overall transportation system, prompting employers to encourage commuters to use alternatives to driving alone to assist commuters in understanding and using these alternatives.

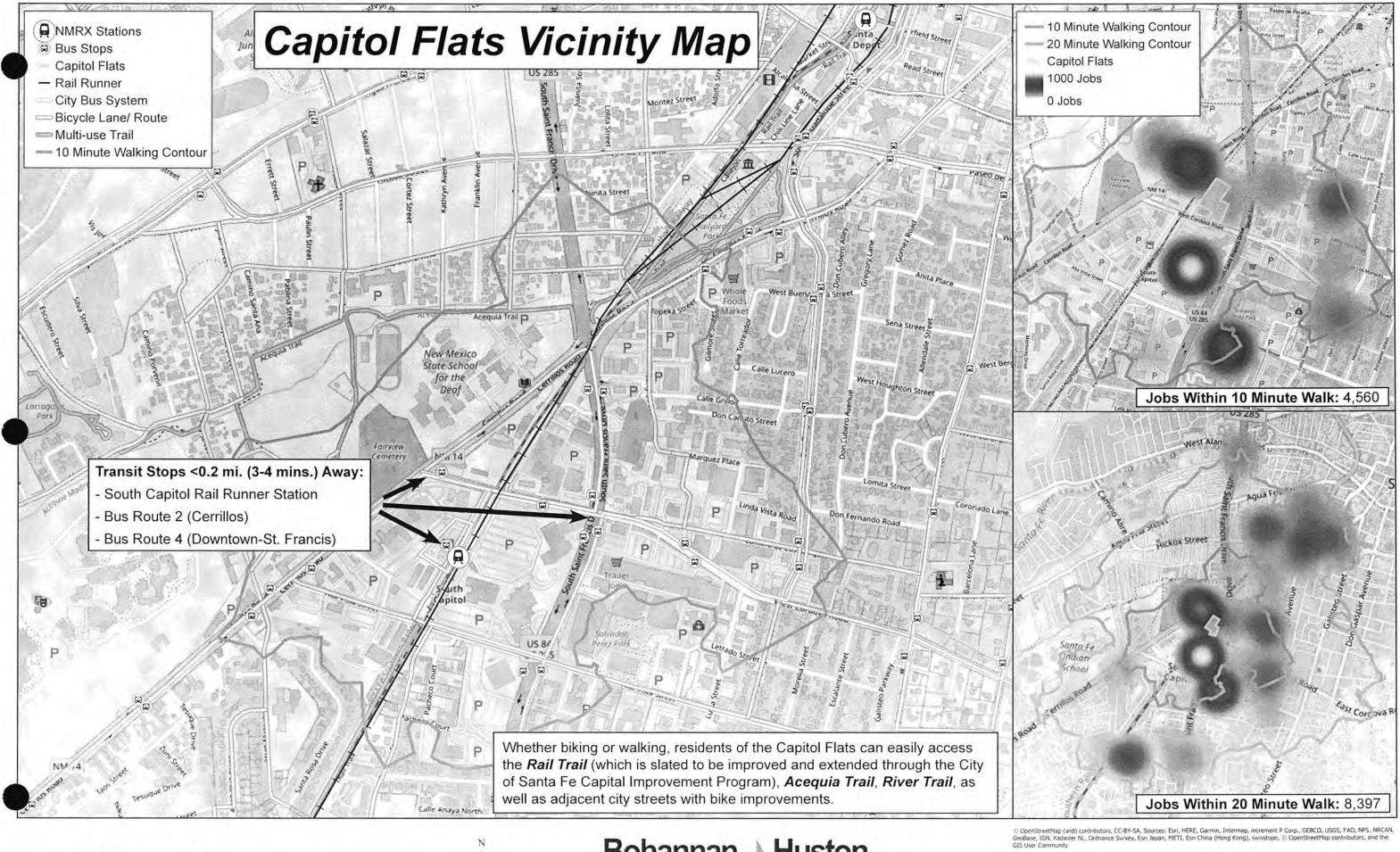
# The Land Use and Transportation Connection

Land use patterns and transportation systems influence the overall quality of place in any community. The shape of a city plays a critical role in how much and how often residents and visitors travel. Although the metropolitan area may be classified as car-dependent, with approximately 90 percent of trips made with an automobile, the region has made significant strides in the past 20 years through its investments in public transit, including the Rail Runner Express, on- and off road bicycle facilities, and multi-use paths. Unfortunately, a separate set of rules, codes, and plans often drives the link between land use and transportation policy, including affordable housing.

Developing the greater Santa Fe metropolitan area in a more transportation-efficient pattern requires significant strides in policy changes, including the region's land use policies.

Transportation-efficient development is characterized by higher density and mixed uses with easy access to frequent transit service and safe and comfortable bicycle and pedestrian infrastructure. Land use policy impacts transportation, affordable living, sustainability,

Appendix B: Site Map



Bohannan Huston